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State Recreation

Parks, Forests and Game Preserves

2077

By
BEATRICE WARD NELSON
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NATIONAL CONFERENCE ON STATE PARKS

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OBJECTS

The objects of this Conference are to urge upon our governments, local, county, state, and national, the acquisition of additional land and water areas suitable for recreation, for the study of natural history and its scientific aspects, and the preservation of wild life, as a form of the conservation of our natural resources, until there shall be public parks, forests, and preserves within easy access of all the citizens of every state and territory of the United States; and also to encourage the interest of non-governmental agencies and individuals in acquiring, maintaining and dedicating for public uses similar areas; and in educating the citizens of the United States in the values and uses of recreational areas.

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Courtesy of Save the Redwoods League.

SUNLIGHT AMONG NATURE'S GREAT GIFT TO CALIFORNIA—NOW DEDICATED TO THE PEOPLE

Introduction

THE need for a reference book on state parks, and other state recreational areas such as forests and game preserves, has long been recognized by those actively engaged in such work. In the last few years, due to the widespread demand for park and recreational areas throughout the country, which could not begin to be met by the national parks on one hand or the small city parks on the other hand, there has grown up a large group of people who are intensely interested in becoming acquainted with the outdoor recreational movement in this country. By thus familiarizing themselves they are in a better position to forward in their section of the country in a proper way a successful park and outdoor recreational policy.

The work of the National Conference on State Parks has shown such a widespread interest to exist in all phases of park work and outdoor recreation, as fostered by governmental agencies, such as states, counties and cities, that the preparing and publishing of a reference book on this subject was decided upon. Funds to enable the collection of these data, their preparation and publication, were furnished by the Laura Spelman Rockefeller Memorial, to which organization the National Conference on State Parks is greatly indebted for the financial assistance which made this book possible.

In a new public movement most interest attaches to its early struggles for successful recognition as a governmental function, and in state parks and areas for outdoor recreation the same is true. This history is given in some detail, and should be of interest to all proponents of this subject. In the acquisition of areas there is a great variety of methods employed, due to local conditions existing in the different states, and to the state constitutions and laws already in force. These various methods are discussed and compared. It is further shown what laws are in force in all of the states which deal with the acquisition, development and administration of park, forest and game areas.

In administration, as in acquisition, there is great variety, due almost entirely to the limitations of state authority, or to a definite sentiment already existing within the state on the functions of a state in the recreational movement. How the different states have handled this matter is amply dealt with.

The general chapters on the subjects just mentioned precede the chapters giving in full detail a description by states of all park areas, forest areas, and game preserves, which data makes up the body of this reference book. In these chapters information regarding all

areas owned or under control of the state are given for the first time. Lovers of the outdoors—campers, hunters or tourists—can get full facts in regard to how to reach each area, what type of camping is permitted within the area, and where, and the type of scenery or type of development for which the area is best known.

Those interested in a tabular presentation of the facts dealt with within this book will find in the appendices concise tables listing by states all parks, forests, and game preserves, giving the name of the areas, date and method of acquisition, location, size, special characteristics, type of recreational development, and the general type of the area. For the first time an attempt has been made to give a classification to each area, such as physiographic, where it was established to preserve outstanding physical features of the surface of the land; forested, where the area is mostly covered by forest growth, where virgin timber has been preserved, and where recreation and forestry are of equal value; scientific, where the principal surface or underground features are primarily of scientific interest; and historical, where an area is preserved for its historic associations. From these tables one may very quickly compare the progress of the state park, forest and game program in each state and how important a part gifts of areas play in this type of development.

In the preparation of this reference book the author has received the most valued cooperation of the park, forestry and game officials of each of the states. Without their continued assistance in revising and bringing up to date the information relating to their states, which was sent to each of them for final approval, it would not have been possible to prepare this book in its present form. The thanks of the author are extended to all of them for this valued assistance. The author is also grateful for the valuable information on game and game work given by Dr. T. S. Palmer, of the U. S. Biological Survey. The American Scenic and Historic Preservation Society and the Society for the Protection of New Hampshire Forests, through their secretaries, Raymond H. Torrey and Philip W. Ayres, have cooperated by furnishing detailed information regarding the work they have accomplished.

A History of State Recreational Areas

RECOGNITION of the necessity for park areas has been of slow growth, since such areas are a development of the last fifty years, and on an intensive scale of the last ten. There was no desire for parks, outside of a few smaller areas, in the first hundred and fifty years of our history—the Revolutionary Period. Hunting and fishing were then a necessity, now they are recreation.

Probably the earliest park areas in this country were established through an ordinance of the Massachusetts Bay Colony in New England in 1641, when it decreed that "Great Ponds," bodies of fresh water over ten acres in extent, should be forever open to the public for "fishing and fowling." They were a food necessity for the struggling colonists in those early days and so were placed within reach of all. Now the public demand needs them for breathing spaces and for our necessity—recreation, just as important to the present-day population as to the first hardy settlers. An interesting cycle on the necessity of public lands being dedicated to the public use. The public right to these "Great Ponds" is still maintained. In 1923, because of disputes over the title, the attorney general of Massachusetts expressed the opinion that such right was still in the Commonwealth. He extended the use of these waters by the people, saying: "The great ponds can be applied to such uses as the progress of civilization and the increasing wants of the community properly demand. Fishing, fowling, boating, bathing, skating or riding upon the ice, taking water for domestic or agricultural purposes and the cutting of ice are public rights which are free to all persons so far as they do not interfere with the reasonable use of the ponds by others or with the public rights." The "Great Ponds" are estimated to number 2,000, covering 90,000 acres.

After the Civil War sentiment developed for the conservation of our scenic treasures, and the first state parks were established between 1870 and 1890.

Curiously, the first state park is now our world-famous Yosemite National Park. The Yosemite Valley, with its great overhanging cliffs and waterfalls of extraordinary height, and the Mariposa Grove of big trees, were given to the State of California for recreational purposes by act of Congress in 1865. Actual control of the area and its development by the state was delayed ten years by the claims of settlers. A commission appointed by the Governor administered the area, and for thirty years it remained a state park—a magnificently beautiful state park. The famous naturalist, John

Muir, believing that the area should be increased in size and should have national status comparable to the Yellowstone, led a demand for its establishment as a national park. Congress in 1890 created a national park of the area adjacent to the valley and, in 1905, the state legislature passed an act of retrocession and the valley and grove were added to the park.

Efforts to preserve from defacement one of our greatest natural wonders, Niagara Falls, begun in 1867, culminated in 1885 in the dedication of the Niagara State Reservation as New York's first state park. The reservation originally contained Goat Island and near-by islets, Prospect Park at the brink of the American Falls, and a narrow strip along the upper rapids. It is now being enlarged by memorial riverways and reservoirs extending along the Niagara River from Lake Erie to Lake Ontario.

From these beginnings of state parks it may be seen that in each instance it was a long fight to achieve success. Fifteen years elapsed before Yosemite was consolidated into a real park; it took eighteen years to save Niagara as a park area. From this it is evident that the successful culmination of efforts in state park work took as long a period of time as the same effort for the establishment of some of our great national parks. We should, therefore, not be discouraged if our first efforts in saving some of our outstanding state park areas do not meet with success within a year or two.

In the same year, 1885, Mackinac Island was transferred to the State of Michigan by the Federal Government. This property was originally a military reservation and was for a time a national military park, the second to be established. The great natural beauty of Mackinac, with its setting of three great lakes, makes it an ideal location for a state park, and added interest is given by its historical past—a past visualized in the old blockhouse and the fort commanding the harbor. The old fort was built in 1780 by the British, and figured in many incidents of early American history. An interesting phase of the development of this park of 2,000 acres is the prohibition of automobiles, tours of the park being made in comfortable horse-drawn carriages.

In the same year the earliest forest preserve was created by the New York legislature. In 1883 a bill was passed prohibiting the further sale of state land within the Adirondacks, and in 1885 a state forest commission was created with custody of the Adirondack State Forest of 800,000 acres. Cutting of timber was prohibited in 1897, and similar action was taken in regard to state lands in the Catskills in 1899, making both areas essentially state parks.

The Adirondack Preserve comprises 3,313,564 acres, of which 1,884,643 acres are owned by the people of New York. The Catskill Park has an area of 155,253 acres.

A few years later Minnesota entered the field, establishing first, in 1889, the Birch Coulie Park, a battleground of the Sioux War of 1862; in 1895 it acquired Camp Release, scene of a siege of the whites by the Indians, and the beginning of the well-known Itasca Lake State Park in 1891. This park embraces the headwaters of the Mississippi River and includes some of the finest remaining stands of Norway pine in the country.

We can see that in the beginning park areas came from several different sources, lands of fish and game value, then areas of scenic beauty, then military reservations no longer needed, and forested lands; a logical and, so it would seem, proper cycle.

For a few years following 1890 there was no interest in the development of state recreational systems. Then, in 1895, the first large, extensive state park was created when the nucleus of the Palisades Interstate Park of New York and New Jersey was acquired—an outdoor area accessible to a great population. The preservation of this area was due to a desire to save from further destruction the Palisades of the Hudson. In the same year, 1895, the American Scenic and Historic Preservation Society was created with the object of acquiring state and historical parks. Similar agencies have been created in other states, among them the Trustees of Public Reservations in Massachusetts, the Appalachian Mountain Club, the Society for the Protection of New Hampshire Forests, and the Historical and Archeological Society of Ohio. These organizations have acquired numerous properties in several of the states, which when of sufficient size have become serviceable units in the state park system.

State park and forest developments in the first years of their history were limited to a few states. Such areas offering excellent recreational facilities now exist in one form or another in forty-five of the states. The tremendous growth of state recreational areas during the past ten years has been due primarily to two causes—the advent of the automobile with the consequent growth of cross-country travel, and the need for the establishment of outdoor areas easily accessible to the public. From this demand came the extensive establishment of state parks, the recreational use of state forest areas and the beginning of the recreational use of a number of game preserves.

Realizing the need for an organization which would give further stimulus to this movement for the provision of outdoor recreational

opportunities, a meeting was called in Des Moines, Iowa, in 1921, by a group of well-known conservationists to consider the organization of an association. The National Conference on State Parks was organized as the result of this meeting. The Honorable John Barton Payne, chairman of the American Red Cross, served as chairman from the beginning of the organization to June, 1927, when because of his duties with the Red Cross he asked to be relieved as Chairman, continuing, however, as a member of the Executive Committee. He was succeeded in August, 1927, by the Honorable Stephen T. Mather, Director of the National Park Service, the man with whom the thought of the organization originated.

The objects of the National Conference on State Parks, which is now an incorporated body, are "to urge upon our governments, local, county, state, and national, the acquisition of additional land and water areas suitable for recreation, for the study of natural history and its scientific aspects, and the preservation of wild life, as a form of the conservation of our natural resources, until there shall be public parks, forests, and preserves within easy access of all the citizens of every state and territory of the United States, and also to encourage the interest of non-governmental agencies and individuals in acquiring, maintaining and dedicating for public uses similar areas; and in educating the citizens of the United States in the values and uses of recreational areas." Since its formation the Conference has held meetings every spring—at the Palisades Interstate Park in New York in 1922 and 1927; at Turkey Run State Park, Indiana, 1923; at Gettysburg National Military Park, Pennsylvania, 1924; at Skyland, Virginia, in the proposed Shenandoah National Park, 1925; at Hot Springs National Park, Arkansas, 1926, and in San Francisco and Los Angeles, California, 1928.

Among the most outstanding accomplishments due to the work of the Conference are the survey of state parks and forests conducted in 1925 and 1926, and the organization of regional conferences. Two such conferences have been formed—the Ohio Valley Regional Conference, consisting of Ohio, Kentucky, Indiana, Illinois and West Virginia, and the Regional Conference of the Southwestern States, consisting of Texas, Oklahoma, New Mexico and Louisiana. There is in process of formation another conference of Pacific Coast States which will probably be participated in by California, Oregon, Washington, Utah and Nevada. These associations have given great aid to the states participating. The National Conference has also fostered the establishment of state park associations in a number of the states, and these associations have been most helpful in the forwarding of this most valuable work.

Administration

There are a great variety of administrative agencies under whose jurisdiction state parks, forests and game preserves fall. Of these three types of area the state park has the greatest variety of administrative agencies. Game preserve work comes under the administration of an agency definitely created to administer it. It either falls under the game commission, a chief game warden, or a department of conservation in which there is a division devoted to this work. State forests have the same type of administration, and, with the exception of West Virginia and Nebraska, each state has a distinct unit except those few in which it falls under a division of the Department of Conservation. In Nebraska state forests are administered by the Conservation and Survey Division and in West Virginia by the chief forest fire warden.

Among the agencies administering state parks are found state park commissions and state park superintendents, controlling single parks or entire systems; state foresters; departments of conservation or conservation commissions controlling forests, fish and game; highway commissions; fish and game commissions; historical or scenic societies; private organizations holding lands as public trusts; land commissions, and departments of agriculture. It would seem advisable for the welfare of the state park movement if all state parks had a definite form of administration. Probably the most practical system is a department in which are grouped all the recreational, development and conservation activities of a state government. In a number of states such departments already exist under various names and have centered in them parks, forests, fish and game, and other comparable work. Through such a department it is possible to coordinate each of these activities in such a way that it works to the advantage of each. Such departments exist in Indiana, Michigan, Louisiana, Massachusetts, Minnesota, North Carolina, Wisconsin, Virginia, New York and California. Michigan has a Department of Conservation and Development, but fish and game work is administered separately by a board of fish and game commissioners. In Massachusetts also state preserves are scattered under several agencies. With a great demand for outdoor spaces from the citizens in areas of large population the trend is toward a central conservation commission including park, forest and game work.

In two of the states, Nebraska and Utah, state park work is under the administration of a state park board. No parks have as yet been developed in Utah, but this system is worked to good advantage in Nebraska. In a number of states—for example, Louisiana, Massa-

chusetts and North Carolina—state parks are under the administration of the state forester. Massachusetts and North Carolina have already created park areas, but the work is just beginning in Louisiana. In Alabama, Oklahoma, and Mississippi the state foresters have legislative authority to create state parks through purchase or gift. This method sometimes tends to discourage the creation of state parks.

A Department of Natural Resources has just been created in California. In this department all the outdoor activities of the state will be centered. In New York a State Park Division was recently created under the Conservation Commission. New York has a large number of state parks which were formerly administered by separate agencies. An effort toward coordination led to the creation of the State Council of Parks in 1924. This Council acts as a central advisory agency for a variety of commissions. Under an act of 1927 it was made a division in the Department of Conservation, although it maintains in its membership representation of regional commissions.

In several of the states, notably Kansas and Missouri, the state parks are under the administration of the Department of Fish and Game. These parks are purchased from a certain percentage of the proceeds obtained from hunting and fishing licenses, and as a result of this method of acquisition they are developed primarily for the use of sportsmen. In Oregon the parks are purchased through the Highway Commission and consist principally of scenic spots along the highway, purchased to preserve them from destruction as well as to provide, in some instances, camping areas. These parks usually are small in area and do not logically come within the state park classification.

The development of these three activities, state parks, forests and games preserves, so far as recreation is concerned, differs materially. State game preserves have little recreational development, except that in a number of the states certain areas surrounding the preserves are set aside where hunting is permitted. Public shooting grounds are also being established by a number of the states, areas administered by the game department.

State forests are usually of large size and therefore permit of ample recreational use. They are, however, as a rule, devoted to more simple forms of recreation, such as camping, fishing, hunting and hiking. The state forests of Pennsylvania have within their area public camp grounds and state forest parks and provide extensive recreational use. The forests of Massachusetts and Vermont are also largely developed for camping.

State parks have a wide variety of use when developed for recreation. They offer opportunities for camping, hiking, boating, bathing, fishing, and are increasingly being used for winter sports. There are a variety of methods by which they are developed for such use. In several of the states charges for camping space are prohibited by law. In other states, such as Indiana, the receipts from such camping fees aid materially in meeting the expenses of park administration. During the past few years substantial shelters in the form of one-room cabins, with a small stove for heating and cooking, have been developed. This system, originating on the Pacific Coast, may be found in many of the western state parks and has been introduced in the Allegany State Park in New York. There, however, canvas tents have been substituted for wooden shacks. Where there is a charge for camping space it is usually 25 cents a night. The shacks usually rent from $1.00 to $1.50 per night. Camp sites in all the parks are provided with proper sanitation and water supply. Firewood is available; in some parks it is free, in others there is a small charge. In southern Michigan, where wood is scarce, coke is provided.

The larger and more extensively developed state parks offer a variety of service to visitors. Hotels operated under concessions are located in Indiana parks, the rental going into a revolving fund for the development of the park. There are two hotels in Custer State Park in South Dakota, a hunting lodge in Louisiana operated by the Department of Conservation, an inn at the Itasca Lake State Park and a hotel in the Caledonia State Forest Park in Pennsylvania. In Connecticut the provisions include gas, attractive bathhouse lockers and bathing suits, restaurants, refreshment stands, guarded parking spaces and canvas bungalows in addition to camping facilities. In our most extensively developed state park, the Palisades Interstate Park of New York, the service includes—excursion steamboats, sight-seeing busses, restaurants and cafeterias, hotel service in the winter, boats, swimming pools, parking spaces and other facilities. The Allegany provides tents and shacks for rental and a store and meat market for visitors.

Indiana is the only state which charges admission to each of its state parks. When a park in this state is developed for the use of visitors a small admission fee of 10 cents is charged. This income goes into a revolving fund which is used for the development of the park. It is the belief in Indiana that parks should be as nearly self-supporting as is possible and that those who enjoy the parks are willing to contribute a small amount toward their maintenance. Under this system parks do not become a burden on the taxpayer.

There is a tendency in several of the other states to adopt this method.

Several of the parks have been developed for winter sports, principally in the northern states. The Palisades Interstate Park has become a popular center during the winter, and skating, skiing and tobogganing are provided for. A ski jump has recently been added to the park's facilities. Similar development is proposed in the Allegany State Park, and considerable winter use is made of the Cook County Forest Preserve in Illinois. In other states to a lesser extent state parks near large populations are being developed for such sports.

There is a growing tendency to develop service areas in state parks, centering the development for recreation in one area and leaving the remainder of the park a wilderness. This method is followed in Indiana. In this state within the main service area are grouped the hotels, restaurants, lunch stands, shelter houses, cottages, garages, auto parking spaces, servants' quarters, laundries, power and public houses, garbage incinerators, and septic tanks. In the secondary service areas provisions are made for campers and picnickers, such as a safe supply of drinking water, camp cooking places, and sanitary toilets. Through the use of a service area large numbers of people can be handled with comparative ease. From such areas trails lead to the wilderness sections of the park, leaving preserved in its natural condition for the lover and student of nature beautiful scenic areas for the preservation of which the park was created.

Acquisition

Many methods are used in the acquisition of land for state parks, forests, and game preserves—many different methods. There is great regularity in the acquisition of forest lands and game preserves, great variety in the acquisition of state parks.

State forests have been acquired through purchase, in a few instances by gift, occasionally through bond issues, and through the exchange of school lands.

Game preserves have been set aside principally through the use of receipts of the fish and game work for purchase. In most instances the receipts from fishing and hunting licenses, fines for violations of the game regulations, etc., are set aside in a fish and game fund which is used for the work of the department. Practically all fish and game departments in the various states are self-supporting. Some preserves have been given to the states.

State parks have been acquired through gift, the proceeds of bond issues, tax levy, exchange of school lands, purchase through legislative appropriations, transfer of Federal lands, and the use of a certain percentage of the fish and game funds.

Large gifts have been made to the park systems of several of the states, notably New York and Michigan. Of Michigan's sixty-four state parks, fifty-nine have been donated to the state. The Dodge Brothers alone donated ten areas, most of them near the city of Detroit. It was the belief of this company that through the gift of these areas it was making a contribution to the health and happiness of the people of Detroit. Howard B. Bloomer, of Detroit, at that time chairman of the board of directors of the Dodge Brothers, personally gave four sites to the state. Probably the largest gifts have been made in New York, where contributions for the Palisades Interstate Park total in the millions of dollars. Valuable areas have been donated in other sections of the state. In Texas the State Park Board made a tour of the state several years ago and, as a result of appeals in various sections, secured the gift of fifty-one areas as state parks. Many of these areas were unsuitable for park development and have been returned to the county or owners of the land. Twenty-four of the parks were accepted by the state legislature and will be developed by the building of roads and the construction of camping facilities as funds are available. Practically every state in the Union has received gifts to its state park system of land or money. In Iowa, many of the state parks were gifts. Many of the finest areas in the state park systems of Washington, Wisconsin and Minnesota were donated to the states, and in Kentucky the entire state park system was established in this way.

Indiana's park system has received many gifts, the latest the contributions of Samuel Insull, the late Judge Gary, and Julius Rosenwald, which made possible the acquisition of the present Sand Dunes State Park.

In many of the states, conservation officials believe there is as much justification for the issuance of bonds for the purchase of park and forest lands as for schools and roads, since such areas are of prime importance to the health and welfare of the people of the state. New York has approved three bond issues for state park acquisition—one of $2,500,000 having been approved in 1910; another for $10,000,000 in 1916; and the last, the $15,000,000 bond issue of 1924 which, when submitted to the voters, carried by a majority of 986,000. Cook County in Illinois passed bond issues of over $15,000,000 for the acquisition of the Cook County Forest Preserve. New Hampshire's legislature in 1925 approved a bond issue of $200,000 for the purchase of Franconia Notch. California will submit a bond issue of $6,000,000 to the voters in November, 1928, while Pennsylvania is voting on a bond issue of $25,000,000 for state forest purchase. The California bond issue law carried a provision that funds spent under the bond issue must be matched by an equal sum of private moneys. A bill for the issuance of bonds for park purchase will be submitted to the next legislature in Rhode Island. In Illinois a bond issue of $20,000,000 to permit of the establishment of forest, fish and game preserves and recreational grounds in each county of the state will be submitted to the voters at the November election. This bond issue is particularly interesting since additional taxes will not be levied to pay the interest or retire the bonds but such costs will be met from the receipts of the hunting and fish licenses. In Washington and Connecticut there has been an unsuccessful effort for a number of years to secure the passage of bond issues for the purchase of desirable areas.

In a number of states the issuance of bonds is not approved and several, notably Indiana, have statutory provisions prohibiting such action. When it was necessary to raise funds for the acquisition of the sand dunes on Lake Michigan, Indiana's legislature passed a law providing for a tax, distributed over a period of eight years, bringing in approximately a total of $850,000. This state has been aided by several of its counties issuing bonds, the proceeds from the sale of which then were used to purchase park areas. These parks were turned over to the State Department of Conservation to develop and administer. Three state parks have been acquired in this manner, made possible by the cooperation of Steuben County, Lawrence County, and jointly of Clay, Greene, and Sullivan counties.

A number of parks and forests in the west have been created through the exchange of scattered school lands for equivalent areas in the national forests. This was made possible through the cooperation of the United States Forest Service, which was authorized by Congress to make such exchanges. These school sections were granted to all but the original thirteen states. Thus the states were able to bring together large tracts of consolidated forest lands of economic and recreational value. The great Custer State Park in South Dakota is made up partially of lands acquired through exchange, as are some of the state forests of Montana, Idaho, Oregon and California. Washington is now negotiating for the exchange of widely scattered school lands for national forest areas.

A few state parks have been established through the transfer of land by the Federal Government. Several have been transferred to the state without cost, such as the Presque Isle State Park in Pennsylvania; Fort Mackinac, Michigan; Fort Macon, North Carolina; and Fire Island, New York. To make any transfer of Federal property an act of Congress was necessary until 1927. Now, under authority of the recreational act passed in 1927, vacant public land may be secured for $1.25 an acre on application of the authorities of the state in which it is located to the Secretary of the Interior, subject, of course, to his approval of such transfer. The Joint Committee on Recreational Survey of Federal Lands compiled a list of the unentered public lands throughout the United States. The committee's study of this question showed that some of these lands, particularly in Utah and California, are well suited for park uses. A number of surplus lighthouse properties were acquired by the states without cost, among them properties in Oceana and Mason counties, Michigan. An attempt was made to secure several War Department properties declared surplus properties, for park uses, but the prices asked by the War Department were prohibitive. A notable example of this effort was Camp Upton, New York, which the State Council of Parks desired to purchase for addition to the state park system of New York.

State parks, or equivalent areas, have been acquired in several of the states through the use of fish and game funds. Missouri's twelve state parks have been secured in this way. In 1923 a law was passed allotting 25 per cent of the game funds to the purchase of areas for state parks. By 1925 the sum of $175,000 had been accumulated, and in that year was used to purchase eight state parks, to be administered by the Fish and Game Department. In Kansas state parks, or recreational grounds, have been purchased in the same way. In Nebraska such funds will be used to acquire public fishing grounds. New York is utilizing a percentage of the fishing, hunting,

and trapping license fees to purchase lands for demonstration forests, which it is said will eventually have recreational use.

Another method of acquisition of state parks, forests and game preserves is purchase through legislative appropriation. Dependence on this method does not seem to guarantee a successful program. For example, Iowa's yearly appropriation of $100,000 for state parks was cut to $75,000 in 1924. Massachusetts' forestry acquisition program was seriously hampered for a number of years when a proposed definite annual appropriation was cut. In Washington several years ago an appropriation of $250,000 for state parks was passed by the legislature but was cut by the Governor's veto to $50,000.

In summing up the methods used for acquiring state parks, forests and other recreational areas, it is seen that all methods of obtaining money have been used. It is the only major state activity that has consistently accepted gifts of money for carrying on a state function. In a way this has hindered the establishment of recreation as a definitely recognized function of the state government, since many states seem to look upon the provision of recreational opportunities for their people as a semi-governmental activity, but an activity which they are willing to supervise. However, the trend is toward the assumption of responsibility for park and forest acquisition by the states through the issuance of bonds, as evidenced by the recent bond issues submitted to the voters of the state in California, Pennsylvania and Illinois.

Legislation

In the early stages of state park, forest and game development the legislation enacted for the creation and development of these areas varied considerably. Today the laws regarding state forests and game preserves have become more or less standardized, unquestionably due to the fact that these phases of state development have been in existence for so many years. Much variety still exists in the method of creation, administration and development of state parks.

In all but one or two of the states game work is under either a fish and game commission or a division of fish and game in a department of conservation. In other words, this work is administered by an authority created specifically for that work. The proceeds from hunting and fishing licenses, fines for the violation of game laws, and income from other sources are invariably deposited in a special fund established for that purpose. In a few of the states the commissioner has authority to draw on this fund, but in the majority of the states the amount to be utilized is appropriated from the conservation fund by the legislature. The majority of the states have authority to accept gifts of land for game preserves, and also to purchase areas for game preserves and for public shooting grounds. The recreational use of the lands in the game preserves is becoming increasingly popular, and it is probable that before many years the larger preserves will have areas set aside for recreation. In several instances, for example Missouri and Kansas, a certain percentage of the proceeds of the game fund may by law be devoted to the acquisition of state parks. In Nebraska and Illinois the same method will be followed in the acquisition of recreational areas, and Illinois will submit a bond issue for $20,000,000 to the legislature which will be used for the purchase of game preserves.

State forests are all administered by a division of forestry under a department of conservation, a state forest commission and state forester, and, in one instance, by a state board of agriculture. This uniformity in administration is probably more prevalent because the primary purpose in the preservation of forests is economic. In addition to this the recognition of the potential recreational value of states forests has led to the broadening of laws governing such areas to include recreational development. In a few of the states the recreational aspect of the state forests was developed from the beginning, due to the vision of far-sighted officials.

The laws governing state parks are quite varied in scope. These areas are under many different forms of administration, varying from

such simple methods as the state department of conservation to many park commissions, as in Massachusetts. In New York the parks were formerly administered by separate commissions, but in the past few years these commissions have been centered in a State Council of Parks. During the past two years, this Council has been placed under the administration of the Department of Conservation, retaining its membership of regional commissions. In the states where the state park development has reached the highest stage there is a tendency toward the centralization of conservation, recreation and allied interests in one department.

One of the first problems undertaken by the National Conference on State Parks after its creation was the study of a model state park law. A committee consisting of Everett L. Millard, of Chicago, Chairman; Judge Asa Owens, of Wisconsin; E. W. Allen, of Washington; Chauncey J. Hamlin, of New York, and Charles G. Sauers, of Indiana, was appointed to study such a law and report to the 1922 national meeting of the organization. After a diligent study of the entire United States the committee recommended that because of the vastly different park requirements of the states, due to their geography, population, and size, it was inadvisable to advocate a uniform state park law. It did recommend some uniform ideas derived from the experience of several of the states. It recommended that state parks be administered by a state board of park commissioners which would have the care, charge, control, supervision and management of all parks acquired. It was thought advisable to permit such a commission to make all necessary rules and regulations, to construct and maintain the necessary roads, walks, paths and bridges, to grant concessions upon a rental or fee percentage basis, to acquire by donation, purchase or lease titles to tracts of land, to have authority of condemnation under the eminent domain laws of the state and to make a survey of the state for areas which should be added to the system. The committee also recommended that the commissioners composing the board serve without pay, since such a board is usually non-political. It also provided in the model law for cooperation between the United States Government, counties or cities, and the state officials in park or parkway programs. As an alternate a bipartisan board with a salaried director was suggested.

Since this law was proposed the tendency toward centralization of parks, forests and game work under a department of conservation has developed. The simpler form of administration seems to be entirely adequate for a number of years in states where there is less demand for outdoor recreation, due to smaller population. Un-

questionably the department of conservation tends toward greater co-operation between these three phases of outdoor activity.

The authority of condemnation is most necessary for a park board to have. It enables the state to preserve outstanding scenic areas which it many times can not otherwise obtain. Its value has been demonstrated during the past few years in Kentucky. Had the Kentucky State Park Board had authority to condemn land for state park purposes the Cumberland Falls of Kentucky would now be preserved from power development, and one of the few remaining waterfalls in the United States would remain in its original state. In New York the park authorities have the right of condemnation, and entry and appropriation. Under the New York laws, when land is condemned upon notice to the owners title vests immediately in the state or other public authorities. A commission of three appointed by a judge then decides on the amount of the award. As applied to the majority of the state park commissions outside New York, condemnation simply means that a judge may be asked to appoint a commission to fix the value of certain lands and the title to these lands does not vest in the state until after the award is made and accepted by the state authorities. In the case of entry and appropriation the state enters and takes a parcel of land. The owner applies to the court of claims, which fixes the award, the title being vested in the state after the entry and appropriation papers have been filed with the Secretary of State and served on the owners. The present authorities in New York prefer the method of entry and appropriation, but this is considered rather drastic in the majority of the states. This method, however, was used successfully in acquiring land for the Forest Preserves of New York for many years, and during the last two years has been used by the State Council of Parks in acquiring land held by owners who did not desire state park development in their vicinity or held by real-estate speculators. It is generally agreed that the right of eminent domain should be exercised only when absolutely necessary, but the authority to exercise it should be on the statute books if the state is to acquire park lands under a reasonable cost.

In a number of the states revenues from state parks are retained, under authority granted by the legislature, and applied to the development of the parks created, and to their enlargement, and in some instances to the acquisition of additional parks. Practically every game department works under such a law, though in some instances the money in the game fund must be appropriated by the legislature before it can be used. The retention of the revenues in a revolving fund has been of great advantage, for example, in Connecticut and Indiana, where goodly revenues have been developed.

In some of the states, however, the retaining of revenues from state properties in a revolving fund has been prohibited by statutory provisions.

A direct tax levy is the method of acquisition used in Indiana, a state where bond issues are prohibited by the constitution. This method was used to raise funds to secure land for the Sand Dunes Park on Lake Michigan.

State parks in a number of the states have been acquired from the proceeds of bond issues. This method is not approved in some of the states—in others, such as New York and Pennsylvania, it has made possible the securing of hundreds of thousands of acres of land. A number of the state authorities contend there is as much justification for the approval of bond issues for parks and forests as for highways and schools, since they are as essential to the public welfare.

County Parks

THOUGH of different origin and usually set aside for a different objective, county parks are closely related to our state park systems and supplement these state parks in the same way that they supplement the national parks. County parks are acquired primarily for the recreational opportunities they afford the people of the immediate vicinity. Often, as in the case of the Cook County Forest Preserve just outside Chicago, they attract visitors from all parts of the country, and, because of their nature, must be considered in a study of the recreational development of the state.

County parks are undoubtedly superseding in some localities the old county fair grounds, which were used only a few weeks of the year for a county fair and carnival which in the past decade in many parts of the country have been run year after year at a loss. A logical solution to these county fairs would be in the making of a county park and recreational center which could be used as a gathering place for the people of the county throughout the year, where seasonal sports could be participated in by the people of the county.

There are two county park commissions in New York whose developments are considered part of the park plan of the state—the Westchester County Park Commission and the Erie County Park Commission. The Erie County Park Commission has plans for acquiring and developing county parks, including parks and parkways which will be part of the state system of parks and parkways. The Westchester County Park Commission has expended over $42,000,000 on its parks and parkways. Recreational facilities are available in the parks, such as bathing, boating, water sports, tennis and golf. Athletic fields have been installed and camping and picnic places are a feature of their development.[2]

A remarkable example of the benefits of county development is found in the Cook County Forest Preserve of Cook County, Illinois. The district consists of 45 tracts, totaling 30,000 acres of picturesque woodland, with lakes, rivers, hills and bridle paths. It encircles the city of Chicago, and provides outdoor recreation for all its inhabitants who care to use it. It is one of the greatest public playgrounds in the United States. The district was established by popular vote in 1914. Bond issues totaling $17,560,000 up to the year 1925 made possible the acquisition of land and improvements. The

[1] Only a few of the outstanding country developments are described in this chapter. It is realized there are many other projects which should be included but the lack of space prevents.

[2] The Westchester County parks are described on page 381.

tax levy on the county in that year for retiring bonds and operating expenses was $2,628,000. The revenues from interest, golf receipts, rentals and concessions were $91,000. Every available form of entertainment is provided, such as camping facilities, swimming, fishing, boating, bathing, athletic fields, tennis courts, and picnicking spots; there are concrete roads winding in and out through the various tracts; drinking fountains, comfort stations, and shelters are available; golf links are being constructed as fast as the demand requires, and baseball diamonds are laid out in nearly every section. There are tempting trails leading into the heart of the preserves. In the winter months the preserves are used as much as in summer, and provide skating on the river, tobogganing, and snow shoeing. A new ski slide has been built at Palos, just west of Swallow Cliff. The preserves are administered by the Cook County Commission, with headquarters in Chicago.

Through the influence of the State University of Wisconsin a law was passed several years ago, under authority of which counties may create county park commissions to establish recreational facilities. Milwaukee County immediately made use of this authority, acquiring nine park areas with a total of 1,147 acres. Eau Claire, Marathon and Bayfield counties began work on similar projects. In Cuyahoga County, Ohio, through the efforts of the Metropolitan Park Board of Cleveland, the park system has been expanded until it not only covers that county but extends into adjoining counties as well. A similar county park system has been started in Summit County. In 1927, Indiana's legislature gave the counties of the state authority to purchase land and to accept as a gift land for county park.

In New Jersey, as in New York, two county park systems are considered a part of the general recreational resources of the state. In Essex County a commission was appointed as early as 1894 to consider and plan for the development of a county park system. Playgrounds and small parks have been selected in congested sections as well as larger parks in urban areas where the scenic quality of the land has been taken into consideration. The example of Essex County was followed in 1921 by the appointment of a preliminary commission in Union County, followed the next year by the formation of a permanent commission. This commission has acquired over 3,170 acres of land, where camping, canoeing, skating, and other outdoor pleasures are possible. Gifts have been received from individuals, corporations and townships. In both Essex and Union counties purchases of land have been made through bond issues and the parks are maintained through a tax levy. In Passaic, Bergen and Camden counties plans have been laid for similar developments.

The supervisors of Los Angeles County, realizing the need for parks available to the congested population of the city of Los Angeles, have established two areas, one on the beach at Santa Monica, with two miles of beach front; the other, the Big Pine Recreation Camp, consisting of 5,000 acres of mountainous land in the Angeles National Forest, leased from the United States Forest Service. This park is extensively developed. Camp sites are available, barbecue pits have been dug, an electric lighting system has been installed, and there is a library, dance hall, swimming pool, store and gasoline service station. Saddle horses and pack animals are available. Excellent roads have been constructed, and there are shelters, assembly and dining rooms, and water and other facilities.

The only counties which have developed park areas as a county unit are counties which have a population problem, due to their density of population, which is similar to the population problems of the larger towns or smaller cities which form our most numerous urban groups throughout the United States. In order to properly develop county parks by such scattered urban groups, which form the majority of population of so many of our counties, they must be made an integral part of the state park system. A state park system which is to be developed for the ultimate advantage of the state should have a decision of county parks as one of its most important units. Where individual counties are not sufficiently dense in population to justify the expense of park creation being born by one county several counties could combine to establish park units for their joint use and enjoyment.

State Parks for Cities

ONE of the greatest needs in the outdoor recreation field is the provision of parks outside our large cities where the tired, weary rest-seeker can find relaxation. Areas in close proximity to super-highways which can be visited when the day's work is over. Areas providing camping facilities for the week-end visitor. Areas of beauty and charm, even though of necessity of comparatively small acreage. Many insist that only the far-away wilds will lure the masses. Never was there a more mistaken idea!

These parks should have nothing in the way of amusements to attract the visitor. The sole attraction should be the desire of the public to get away from the city and into the country. A vital need will be filled when each large industrial center has surrounding it outdoor playgrounds with facilities to provide an adequate outlet for the desire for the outdoors on the part of those who live in congested areas. Visualize one of these parks filled with men, women, and little children and their possibilities for vast good easily can be realized. Certainly they make for greater health and contentment on the part of the city dweller.

The cities of this country, and particularly the large cities, pay into our state governments a great proportion of their taxes. At the same time these cities have such a multitudinous number of duties to perform to their own citizens that it is only logical and proper for the state to assist in any small way it can the welfare of its cities, when the laws of the state will not permit such a great city to look after the recreation of its citizens in an adequate manner. The welfare and health of a major proportion of the population of any city, and particularly of industrial cities, depends on proper outdoor recreation. Such recreation can best be obtained in areas without the city's limits but near enough to the homes of the city dwellers to be reached within an hour or two by our present methods of rapid transportation. It gives the many city motorists a definite objective for their short automobile drives after the day's work is over. It gives them a spot which they can consider as their own without having signs "No Trespass" stare them in the face when they see a roadside spot which was, in the past, the only place they could stop their car and get an opportunity to see the beauty of the country and enjoy the invigorating fresh air, which is such a welcome change from the smoke and grime of our average American city.

Your city, as a rule, can not acquire areas outside its corporate limits for any purpose without a special act of the legislature. The great populations of our cities can not have the spots which they

need for recreation under our present system of rapid motor travel and good roads within the city limits. It is certainly the duty of the states to show to the industrial cities, on which the prosperity of the average state is most dependent, that they are reorganizing and fulfilling their duties to those cities in selecting and establishing, under the proper supervision, many of the best areas in a zone between 20 and 50 miles from the city where the terrain is best suited for a park area. Such a park area should be developed so as to fulfill the needs of the city dwellers. Such an area should be fixed, where, at small cost, those legions of people of moderate means who are the backbone of our population and of our democratic thought and our democratic government, can expend a few hours in relaxation, pleasure and rest after the day's work. A spot where they can have proper camping facilities at an infinitesimal cost over the week-end and for their vacation period.

Near every city the great mass of the people see a few citizens with such an inclination and vision developing their own private camps within short motor distance of their homes. Camps located along some beautiful stream or in a near-by rugged, hilly section where the cost is a minor consideration and where they can go each afternoon and each week-end for necessary recuperation from the grind of executive work and the management of the many businesses which make up their city life. Those who have the vision and are so situated that they can do this for themselves are well known in every community and the great mass of city dwellers know that this is being done and sooner or latter envy their neighbors who are so fortunate. It is an envy which should not exist, since, with a very little foresight and a moderate expenditure of money, the state can furnish great areas near by each city where each individual citizen can go and get for himself just what a few of his neighbors have already acquired.

One of the finest examples of the possibilities of such park areas is exemplified by Detroit, Michigan. There fourteen state-owned park areas surround the city, fanshape, within a radius of 50 miles—all gifts to the state, donated by the Dodge Brothers and by Howard B. Bloomer. Located on either a lake or a stream, most of these parks afford beautiful views of the surrounding country. Two are approximately 20 miles from the center of the city, two more about 30 miles, and the farthest is about 50 miles away. All are located on or close to good roads, so that they are easily accessible.

The donors of these park areas, not content with which they had already given, put certain improvements in most of them, such as sanitary facilities, wells, concrete stoves, designed to cook with either

wood or charcoal, for the use of the campers in the park and for picnickers. Because of lack of funds, the state has only improved eight of the parks and these improvements consist of roads, additional wells and benches, and, in a few, caretakers' cottages have been erected. In other parks the caretakers have been housed in tents.

Of course, there are many who will say that the average city citizen would not use such a park if it were given to him. Such a scoffer would show that he did not know what has already been proven by successful use to be in great demand by the majority of the population of the greater cities of the country, but particularly, so everyone says, by one of our larger industrial cities, Detroit. Here, within a radius of 15 to 50 miles of the city, are located parks, some of them given to the state by the far-seeing citizens of considerable means who rightly feel that they can leave no greater monument than a gift to their state of a recreational area for their fellow citizens who were not quite so fortunately fitted in wordly goods. Other of these areas were acquired by the state by purchase. It is of little moment how these areas were acquired. The great point is that they must and should be acquired in the near future in proximity to each city before land values become too high and before these best spots are taken up and absorbed by a few people for their own private use, when they should be set aside and dedicated for public use. The State of Michigan has shown more foresight in providing such facilities for the city of Detroit than any other state in the Union. And do people use these parks? They flock to them in such great numbers that the small acreage of approximately one hundred acres in some of these areas is inadequate to take care of the throngs, and it has been found that these smaller parks must be doubled or quadrupled in size if the demands of the people are to be met. In one park, located just 27 miles from the center of Detroit, as many as 20,000 people have visited in one day. In another, located on a very beautiful lake and about 30 miles from the center of the city, there have been as many as 30,000 people in one day. In one year over 100,000 people visited one park within 25 miles of Detroit, making use of the camping facilities or spending a day of rest and recreation in these health-giving areas, returning to the rush of everyday life refreshed for the struggle. By visiting is not meant just driving through the park. They stopped and made use of the camping facilities or stayed for several hours enjoying the rest and recreation which comes to people when they get in close contact with the beauties and charm of any small portion of the earth which is attractively wooded and has not been marred by the so-called beauty of man-made improvements.

Each individual is part owner of the parks by virtue of his citizenship in the state. It is absolutely necessary that large industrial centers have surrounding them adequate facilities to furnish a proper outlet for the natural hunger of their people for the outdoors, places where they may spend the week-end and return to their busy lives refreshed in body, spirit and mind.

The people of the cities are the leaders of thought and of legislative action to a great extent and the cities should realize that the states should be educated in reorganizing their recreational needs and in having proper legislative machinery, so that areas within the near-by city zone can be and will be acquired for city-state park purposes.

Alabama

Interest in a program for the conservation of the game, forest, scenic and recreational areas of the state started slowly in Alabama. Constructive effort began in 1907 with the creation of the office of State Game and Fish Commissioner and the passage of the first forestry law. These laws were amended in 1923 and the Department of Game and Fisheries and the State Commissioner of Forestry were created. Little thought was given state park acquisition until 1924, followed, in 1927, by authorization to the State Commission of Forestry to accept gifts of land and administer them as state parks. Forestry and game conservation are making good progress No state parks have as yet been established.

State Parks

For a number of years beginning in 1924, several public-spirited citizens of Alabama worked for the creation of a state park system. Various methods of development were suggested during those years. The first forward step was the appointment by Governor Brandon in 1925 of a State Park Committee to investigate and recommend plans. Mr. M. P. Phillips, of Birmingham, was made chairman. He had a broad experience and a wide interest in park work, but unfortunately died before the committee was completed. The Governor then named the following: Chairman, Dr. Peter A. Brannon, Acting Director, Department of Archives and History; Fred J. Cramton, of Montgomery; Yancey Loveland, of Brewerton; George B. Ward, of Birmingham; and Mrs. Marie B. Owen, Director of the Department of Archives and History.

The committee made a study of the recreational needs of the state, framed a plan, and submitted a bill for the creation of a permanent state park commission to the legislature. This bill did not meet with the approval of the legislature, which, believing there were already a sufficient number of state offices, passed another measure placing state park development under the State Commission of Forestry. The commission has authority to administer state parks which may be created, to recommend for such purposes any areas it believes suitable, and to accept gifts of land for park purposes. Otherwise unused lands of the state found suitable for state parks may, upon approval of the Governor, be devoted to such use.

There seemed to be an excellent opportunity to begin the development of the state park system by the acquisition of an area of United States public land in Little May's Gulf near the boundary between De Kalb and Cherokee counties. An investigation of the

status of this area revealed no obstacles to the plan, and the land was withdrawn from entry through executive order. A bill authorizing the sale of 1,625 acres by the United States Government to the state for $1.25 an acre was introduced in Congress by Congressman Allgood and passed. The bill carried an unfortunate provision, which reserved to the United States, its permittees or licensees, the right to condemn the land for power purposes. Upon an examination of titles by the State Forester, he found that in 1906 Congress granted to certain private parties the right and authority to perpetually flood the tract by means of water diversion works, and that in view of this act industrial developments amounting to several hundred thousand dollars have been made on adjoining areas. The Commission of Forestry, therefore, decided to take no further steps toward the acquisition of this land.

Many opportunities exist for the development of a real system of state parks. While at the present time the privately owned wild land of the state is generally available for recreation through the cooperation of owners, there is still a need for organized recreation with all the necessary sanitary and other provisions.

The state as yet has taken no advantage of the opportunity offered through legislation to acquire state-owned areas, but selections will probably be made in the not distant future.

State Forests

Out of a total area of 32,818,560 acres Alabama originally had 32,000,000 acres of forested land. This forest has now been reduced to 23,000,000 acres, of which only approximately 4,000,000 acres are virgin timber.

Plans for the beginning of state forests brought about in 1907 the enactment of a law providing that the owners of land assessed at not more than $5.00 an acre might enter into a contract with the Commission of Forestry to plant or grow useful timber trees in a manner directed by the commission. The land utilized would be exempt from taxation for a period of ten years. As the commission created by the act was never organized, the law remained inoperative.

The act of 1907 was amended in 1923, and the State Commission of Forestry created. This commission consists of seven members, who serve without compensation. It was given authority to appoint a state forester, to investigate forestry needs, to recommend legislation, and was instructed to encourage the reforestation of cutover lands and timber growth.

The original scope of the commission was expanded by the legislature of 1927. A survey of the state was authorized for the purpose of locating and describing all lands to which the state holds title, no matter by whom administered. The lands are to be recorded and classified as "used" or "unused" lands. "Used" lands refer to lands that are being utilized by any institution or department of the state. The State Commission of Forestry is given jurisdiction over all state parks and unused lands, and is to determine which of the unused lands owned absolutely by the state are suitable for forest culture or for state parks. At the direction of the Governor the lands are to be devoted to the use recommended by the commission. Authority is given for the exchange of state "unused" lands for privately owned lands, when state ownership may be concentrated thereby.

In 1923 a law was passed providing for the deferred taxation of the timber growing on auxiliary state forests. These lands are designated by the Forestry Commission, which enters into contracts, as the agent of the state, with the owners of land for its use for forestry. The land must be devoted to the growth of timber, given reasonable fire protection, and can not be withdrawn from such use for five years. Timber can not be cut except by permission of the commission. At the end of five years all or part of the land may be withdrawn, or the timber may be utilized under the rules of the commission without withdrawal of the land. Under either method a privilege tax is paid on the value of the timber used. When the land is withdrawn the value of the timber is appraised by the State Tax Commission and the State Commission of Forestry, and the owner pays as a privilege tax a sum equal to 10 per cent of its appraised value. This tax is divided between the state treasury and the county where the timber is located.

Four state forests were acquired during 1926 and 1927. They are gifts of lumber companies, and will be developed for recreation as well as for demonstration and experimental purposes.

Alabama cooperates with the Federal Government under the Clarke-McNary Act and will receive, during 1928, $38,350 for fire protection and $2,000 for the distribution of forest planting stock.

The State appropriation for work of the commission for 1928 is $50,000.

The members of the State Commission are: Hon. Bibb Graves, Governor, Chairman; E. F. Allison, Vice Chairman; John L. Kaul, J. Lee Long, I. T. Quinn, and W. M. Spencer. Col. Page S. Bunker is State Forester. His headquarters are in Montgomery.

Game

Wild animal life in Alabama is on the increase, and game work has made rapid progress during the past few years. This is due primarily to a strict enforcement of the game laws and to an observance of these laws by the hunting public.

When work for the protection of game began, it was under the administration of a State Game and Fish Commissioner, created in 1907. In 1923 the legislature revised the section of the state code relating to game and created the Department of Game and Fisheries, with executive power vested in a Commissioner of Game and Fisheries. The commissioner has authority to enforce and administer all laws relating to the preservation, propagation, and development of game, birds, and fish, and all other state-owned natural resources within the borders of Alabama.

No appropriations are made for the work of the department. Its expenses are paid from the Game and Fish Protection Fund. This fund is made up of moneys received from the sale of hunting licenses, fines, penalties, forfeitures, or from other similar sources. One half of the money collected for violation of the game and fish laws is paid to the informant, unless he is a salaried game warden, and the other half is placed in the game fund.

The game laws are enforced by game and fish wardens. The commissioner appoints a warden in each county of the state, with as many deputies as are necessary to carry out the law. It is also the duty of the wardens to aid in the prevention of fires and to warn of raging fires which are beyond their control. All sheriffs, deputy sheriffs, marshals, and other peace officers are ex-officio deputy game and fish wardens. One advisor may be appointed in each precinct of the state. He is chosen because of his interest in the conservation of the state's wild life resources and his belief that the regulations of the state should be enforced. It is the advisor's duty to keep in touch with the county game and fish warden in his district and inform him of infractions of the conservation statutes. The precinct advisor receives one-half of the fine imposed by the court upon conviction.

In 1923 all lands belonging to the state, whether held in fee or in trust, were declared forest reserves and game refuges. Hunting is prohibited. It is unlawful to cut trees or timber on these reserves or refuges, although the state has reserved the right to sell timber growing on the lands.

Land owners in several sections of the state are grouping their lands and developing a system of game preserves. The coopera-

tion of the department is extended in the proper management of these preserves.

The department, among its recommendations to the Governor, requested authority to lease or purchase adequate areas to be reserved as sanctuaries for game birds and animals and a wider latitude in the employment of game wardens in order that proper protection might be given to the wild life resources of the state. The system of game refuges, sanctuaries, and auxiliary refuges is to be patterned after that of Pennsylvania, which has worked out so successfully. Following up these recommendations a complete new code of game and fish laws, prepared by an ad interim legislative committee created by the legislature, enlarging the authority of the Game and Fish Commissioner, was passed by the 1927 Legislature by practically a unanimous vote. It was killed through a pocket veto by the Governor. The legislature meets once every four years. At its next session the revision of the game code will again be placed before it.

I. T. Quinn is Commissioner of Game and Fish. His address is Montgomery.

Arizona

In this state there are neither state park nor forest laws. There is a fish and game department, but the state game preserves which exist are, with one exception, within the confines of the National Forests. They are not state-owned.

While Arizona would seem to be backward in the development of state-owned reservations, it is in no way the fault of the state. This condition is due to the reservation by the National Government as national parks, national forests, and Indian reservations of practically all of the scenic areas and points of historic interest, before the state was in a position to develop them. There is now a movement under way for the turning over to the state of a national monument, which will be utilized as a state park. Governor George W. P. Hunt states Arizona would like to establish state parks and forests were it not for the fact that no suitable lands remain in state ownership. Six-tenths of the area of the state is in Federal ownership.

Game

A game commission was first established in 1887. This was superseded in 1913 by the office of state game warden. The state game warden has charge of all phases of fish and game work of the state.

No state appropriation is made for the work but it is supported from the game protection fund. All moneys received from hunting licenses, permits, certificates, fines, penalties, and forfeitures are paid into this fund.

The game laws are enforced by state deputy game wardens and deputy county game wardens. Each sheriff, deputy sheriff, constable and live-stock sanitary inspector is appointed a deputy game warden. The state game warden may also appoint such deputy county game wardens as he deems necessary. They must, however, be residents of the county from which they are appointed.

For the better protection of game animals and birds six game preserves have been created—five on National Forest land. The following preserves were created by the Legislature of 1917: the Mount Graham, of 204,160 acres, consisting of that portion of the Crook National Forest commonly known as the Graham Mountains; the Huachuca, of 285,970 acres, composed of that portion of the Coronado National Forest commonly known as the Huachuca and Patagonia Mountains; the Blue Range, of 622,080 acres, consisting of that portion of land known as the Pinal Mountains situate within the Crook National Forest. The Catalina Mountains State Game Preserve was created in 1919 and consists of that portion of the Coronado National Forest known as the Catalina Mountains. It contains 195,840 acres. The Coconino-Yavapai Game Preserve in Coconino County was created by the Legislature of 1923. Refuge for deer, elk, sheep, turkey, quail, antelope, peccary, and other birds is provided. The acts creating the preserves within the National Forests provide that stock grazing permitted by the United States Government shall be allowed on the state game preserves.

The State Game Department is urging the Federal Government to turn over the Papago Saguaro National Monument to the state for a state park, bass hatchery and zoo. If this plan is carried into effect Arizona will have her first state-owned park, located approximately seven miles from Phoenix.

The state game warden is D. E. Pettis. His office is in the State House at Phoenix.

Arkansas

Interest in conservation, in all phases of outdoor activity, has been of slow growth in Arkansas. The Game and Fish Commission was not established until 1915, the State Park Commission until 1927. Legislation has not been passed for the protection of the forests of the state. Practically one-third of the area of the state is unproductive and could be used for the production of trees. There is a great need for forest fire protection, and for the establishment of state

forests. There are many opportunities for the establishment of state parks, particularly in the northern hills which offer great springs and clear streams similar to those preserved in several of Missouri's State Parks. Public sentiment for a system of state-owned forests, parks and game preserves is growing, and the proper development of the recreational possibilities of the state will undoubtedly follow.

State Parks

The state park program of Arkansas has been of rather slow development. It began in 1923 with the creation of the Petit Jean State Park. The establishment of this park was the direct result of the attendance of Dr. T. W. Hardison, of Morrillton, at the Third National Conference on State Parks in Turkey Run State Park, Indiana. Dr. Hardison returned to Arkansas, determined to bring about the preservation of Petit Jean Mountain as a state park. He had been interested in saving this area from lumbering since he first saw it in 1906.

The first steps to preserve the mountain were taken in 1921, when the owners of 1,540 acres offered their land to the Congress of the United States for a national park. A bill was introduced in Congress by Congressman Jacoway providing for the acceptance of the tract, but it did not receive the approval of the National Park Service, which suggested the formation of a state park. When the state park proposal was presented to the prospective donors of the land they all withdrew except the owners of an 80-acre tract. This tract constituted the original park. In 1923 a bill was passed by the Arkansas Legislature providing for the acceptance of the area as a state park, but no appropriation was made for maintenance or improvement.

The total area of Petit Jean State Park is now 1,128 acres, making it one of the largest of such preserves in the southwest. Two additions were made in 1927. The Fort Smith Lumber Company, of Plainview, donated 1,023 acres, adding to the park an area of real natural beauty. It includes what is called the Seven Hollows region, a series of roughly paralleled ravines of scenic charm and varied interest. Twenty-five acres immediately adjoining, which included an unusual cavern, were also donated to the State by E. E. Mitchell, of Morrillton.

Among those who aided Dr. Hardison in securing the original Petit Jean State Park were Marvin Huie, A. C. Neal, V. F. Helmus, E. Hale, J. M. Scrugin, A. C. Stover, A. L. Stephen, and Clifton Moose, of Morrillton.

Following the creation of Petit Jean State Park, interest in the state park movement did not immediately develop. No appropriations were made for the recreational development of the park and road improvements have only recently been made. However, in 1925, Attorney General H. W. Applegate attended the Fifth National Conference on State Parks, held at Skyland, Virginia. Returning to the state, the Attorney General secured the appointment by Governor Terral of an honorary State Park Commission to study the park problem. Mr. Applegate was made chairman, and the other members were J. S. Parks, of Fort Smith; J. H. Heiskell, of Little Rock; Hon. A. H. Hewell, of Pine Bluff; Mrs. Bessie N. Florence, Hot Springs; Rev. John E. Brown, Sulphur Springs; and Col. O. L. Bodenhamer, Eldorado.

Additional enthusiasm for the park program was inspired in Arkansas as a result of the Sixth National Conference on State Parks, which was held in Hot Springs in 1926. Following the National Conference the 1927 Legislature passed a bill creating a State Park Commission of seven members, five of whom were appointed by the Governor. The attorney general and the secretary of the Game and Fish Commission are ex-officio members and are chairman and secretary, respectively. The commissioners serve without pay but are entitled to their actual expenses in connection with their official duties.

The commission has authority to select and acquire areas for state park purposes, to make a survey of the state with relation to its need for public parks; to receive and acquire lands and areas by donation, gift, or by the exercise of eminent domain, and to administer state park areas. The act also provides that no conveyance shall be accepted by the commission which contains a reservation of title to timber or mineral rights.

Among projects the commission has in mind are the acquisition of a site on Lake Wilmot in Ashley County and another on a crescent-shaped lake in Chico County. Areas on Lake Enterprise, Mount Nebo, Mount Magazine, and in Green County have been offered to the state but have not been accepted.

The State Park Commission is composed of Dr. Charles H. Brough, Little Rock; Hon. Harry L. Ponder, Walnut Ridge; S. G. Catlett, Dardanelle; George Appleby, Fayetteville; Carl Hollis, Warren; Hon. H. W. Applegate, Little Rock, Chairman; and Guy Amsler, Little Rock, Secretary. The Chairman can be reached at the State House.

Forestry

Arkansas was originally rich in forest resources. Of a total land area of over 33,000,000 acreas, approximately 32,000,000 wer originally forested. The present fostered area is approximately 21,000,000 acres, a size sufficient to make imperative adequate forest protection and forest laws.

Realizing the importance of the enactment of a forestry law, Governor McRae in 1924 appointed an honorary forestry commission of thirty-three men, with J. R. Hamlen as chairman and A. C. Millar, of Little Rock, as secretary. This commission was directed to study forest conditions and submit to the next legislature a constructive program for action.

A bill to enact a forestry law was proposed to the 1925 Legislature. Although it met with strong public favor the bill was defeated in the house after having passed the senate. Under its provisions a non-salaried State Forestry Commission would have been created, with authority to appoint a state forester and acquire state forests. The commission would have consisted of seven members, at least three of whom were required to be owners of timber land.

In 1927 the honorary forestry commission decided not to present the bill to the legislature, deeming it wise to continue a program of education until the 1929 session. However, in the closing days a bill was hastily prepared by another source and introduced simultaneously in each house. Each bill passed, but there was not time to obtain action by the other house. These bills were hastily prepared and were not comprehensive. Their primary purpose was to obtain legislation which would enable the state to secure Federal funds for fire protection. Arkansas is one of only three states which does not receive funds under the Clarke-McNary Act.

The educational program will be continued, and an effort will probably be made in 1929 to obtain legislation creating a permanent Forestry Commission, with power to cooperate with the Federal Government and create a state forest. Public sentiment in favor of this program is steadily growing.

Game

Game conservation is of comparatively recent origin; the Game and Fish Commission was established March 11, 1915. It consists of five commissioners, who have authority to appoint a secretary to serve as executive officer of the commission and as chief game warden.

The work of the department is carried on from the receipts for hunting, fishing, dog, trapping and shell licenses. The receipts are paid to the state treasurer and credited by him to the Game Protection Fund. From this fund the legislature makes appropriations. No general tax funds have ever been used for the work of the department.

Educational work is considered one of the most important activities. The many civic organizations throughout the state have aided in this campaign. Among the methods followed are the printing and distribution of posters and pamphlets relative to conservation work; the publication of an excellent quarterly magazine; the making and showing of motion pictures illustrative of wild life; the organization of conservation clubs; cooperation with the schools, and the provision of educational exhibits for state and district fairs.

Little effort has been made toward the propagation and distribution of game, in view of the ineffective protection system. The commission is in need of greatly increased funds to permit proper game protection through the employment of sufficient wardens who have authority to arrest in the event the game laws are violated. The work which has been done on Rogers State Game Farm has been most satisfactory, however. Ringneck pheasants are the principal product, while bob-white quail and wild turkeys are reared each year. The game which has been distributed has been sent principally to protected farms.

Four game refuges have been set aside within the Ozark National Forest by the United States Forest Service and the department is restocking these areas.

The commission is interested in the establishment of game refuges, the public shooting grounds, and in 1927 the legislature gave it the right to purchase, lease, or accept by gift, proper areas of land and water for game and fish sanctuaries or breeding grounds. Two refuges, consisting of approximately 10,000 acres, have been leased by the department. These are the Bitter Creek Game Refuge, containing 3,030 acres, located in Saline County, and the Hot Springs Game Refuge, in Garland County, containing 6,665 acres. The refuges contain deer, wild turkey, quail, squirrels and other native species.

The commission consists of Lee Miles, Little Rock, Chairman; Harry A. Jones, Hot Springs; G. B. Ewing, McGehee; Harry Neelly, Searcy; and Chas. H. Tompkins, Prescott. Guy Amsler is secretary, with office in Little Rock.

California

California, while rich in national parks, forests and monuments, has not overlooked the possibilities of state-owned properties. State parks were first acquired in 1865, later turned over to the Federal Government, and now, in the past few years, are again being considered and developed. The state also has been active for many years in forestry work, and the beginning of her game work dates back to 1870.

There was no coordination between the above activities until 1927, since there existed without relation to the other, a State Board of Forestry, formerly in charge of certain of the parks in addition to its forestry work, a State Fish and Game Commission, and commission administering two of the state parks. These activities are now centered in the Department of Natural Resources, created by an act approved by the Governor April 13, 1927. The work of this department is conducted under the control of an executive officer known as the director. It is divided into four divisions, the divisions of mines and mining, forestry, parks, and fish and game. The department is vested with all the "duties, powers, purposes, responsibilities, and jurisdiction" of the boards and commissions formerly authorized to carry on this work. It is also empowered to expend the moneys in any appropriation or special fund in the state treasury or made available by law for the use of any of the boards, bureaus, or commissions.

Mr. Fred G. Stevenot has been appointed Director of the Department of Natural Resources. The headquarters of the department is in Sacramento.

State Parks

California was the first state in the Union to create a state park. Curiously, the first state park is now our world-famous Yosemite National Park. The Yosemite Valley, with its great overhanging cliffs and waterfalls of extraordinary height, and the Mariposa Grove of Big Trees were given to the state for recreational purposes by act of Congress in 1965. Actual control was delayed ten years. A commission was then appointed by the Governor to administer the park. For thirty years it remained a state park. As a result of a general demand, Congress, in 1890, created a national park of the land adjacent to the valley. In 1905, the State Legislature passed an act of retrocession and the valley and grove were added to the national park.

In the meantime there was a popular demand for the preservation of a magnificent stand of Redwoods in the Santa Cruz Mountains.

Efforts to save these splendid trees led by the late Andrew J. Hill, of San Jose, and the Sempervirens Club of San Jose, resulted in the creation of the California Redwood State Park in the Big Basin. Acquisition of land began in 1901 and continued until 1918, through purchases and gifts. There are now 9,000 acres in the park, costing in excess of $448,000. A commission to administer it, consisting of four members, was appointed by the Governor at the time it was established.

The destruction of the largest and finest forests of *Sequoia sempervirens* progressed from early days. To preserve these giant trees the Save-the-Redwoods League was formed in 1918. Among other projects, the League succeeded in saving the trees along a 15-mile stretch of the Redwood Highway, comprising 3,000 acres, and now known as the Humboldt and Del Norte State Redwood Park. It was placed under the administration of the State Board of Forestry. The property has a valuation of approximately $1,000,000, and was acquired through state appropriation, gifts from Humboldt County, private donors, and gifts from Redwood owners and lumber companies.

Since its creation, the Save-the-Redwoods League has been responsible for the preservation of approximately 3,500 acres of virgin Redwood forest. It is headed by Dr. John C. Merriam, president; Joseph D. Grant, vice president; Robert G. Sproul, treasurer; and Newton B. Drury, secretary, and has its headquarters in San Francisco.

Other important additions to the state park field followed. In 1923 the State Legislature set aside as a state park 680 acres of land on the summit of Mount Diablo, Contra Costa County. It also was administered by a commission appointed by the Governor.

One of the most picturesque of the state parks was created through an exchange of lands with the Pacific Gas and Electric Company and the gift of Frank McArthur, of San Francisco. This is the Burney Falls Park, of 335 acres, situated at the falls of the Pit River in Shasta County. It was under the jurisdiction of the State Forestry Board. Also, under the administration of this Board was the Bidwell Park, a small wooded tract on Chico Creek, 100 acres in extent.

California's five state parks were under three separate administrations, with none of them having sufficient funds for their proper development. The disadvantages of this system are apparent. There was no comprehensive plan in establishing the parks. They were all located in the north or central part of the state, and, naturally, did not meet the needs of the people of the state as a whole.

There was a complete separation of administration, funds, rules, and, in fact, of the entire policy of development.

The supporters of state parks, realizing the need for a definite state park policy, took measures to bring this about. In this they were to a considerable extent inspired by Dr. John C. Merriam, president of the Carnegie Institution of Washington, D. C., and also president of the Save-the-Redwoods League, a former Californian who had long seen the need for a comprehensive state park program in California. The State Parks Committee, now known as the California State Parks Council, was formed, with Duncan McDuffie, of San Francisco, as chairman. It represented many California organizations interested in conservation, such as the Save-the-Redwoods League, the Sierra Club, the California Development Association, the State Park Association of Los Angeles, the Automobile Club of Southern California, the Native Sons of the Golden West, the Native Daughters of the Golden West, the California State Automobile Association, the Calaveras Big Trees Association, the Redwood Empire Association, the Point Lobos Association, the California Federation of Women's Clubs, the Associated Sportsmen's Clubs, the Conservation Association of Southern California, and many local chambers of commerce.

This movement crystallized in 1925 in the introduction into the state senate by Senator A. H. Breed of a bill for the erection of a state park commission and a survey of the state for park purposes. The bill brought all parks, public camp grounds, monument sites, and landmarks under the control of the state park commission. It also carried an appropriation of $10,000 for the survey. Opposition was encountered from the lumber interests, who feared the passage of the bill would result in the diversion of commercial forest areas for recreational purposes. The bill was, however, supported by many conservationists and the National Conference on State Parks. The bill passed both houses, but was vetoed by Governor Richardson against the advice of some of his closest political advisers. The Governor felt the parks already established were well managed and saw no necessity for a survey. Afterward, when he had visited the parks, he spoke most enthusiastically of their recreational value.

Interest in the development of a comprehensive state park system continued during the next two years and the measures were not dropped. Senator A. H. Breed, in 1927, introduced three bills—for the creation of a state park commission; for a survey of the state to determine what areas should ultimately be acquired; and for a bond issue of $6,000,000 for the extension of the park system. These bills were passed by both houses and approved by Governor Young on May 25, 1927.

The law creating a state park commission abolished the two commissions administering state parks and placed the parks they had charge of, together with those administered by the Forestry Board, under the new commission. Control of the state park system was placed under the Division of Parks in the new State Department of Natural Resources. The commission consists of five members, appointed by the Governor, who serve without salary. The chief of the Division of Parks is appointed by the Director of Natural Resources on recommendation of the commission. Among the important provisions of the bill is authority to accept gifts to the park system, and the right of condemnation with the consent of the Governor and the Board of Control. A contingent fund is established in which all moneys collected or received from gifts or bequests, municipal or county appropriations, or donations are deposited, and may be used for administration and improvement or for acquisition of state parks. All moneys collected from fees or charges are deposited in the general fund of the State of California.

The state park survey law provides for a survey of the state to determine what areas should ultimately be acquired. This is necessary to outline a comprehensive, well-rounded and state-wide plan.

The California State Park Bond Act of 1927 authorizes placing before the voters of the state, in November, 1928,[1] the question of whether the state shall issue bonds to the amount of $6,000,000 for the further extension of the park system. Before bonds can be issued and sold each park project in question must have the approval of the state park commission and one-half of the cost of the project must have been raised by private donations.

Governor Young appointed as members of the commission five distinguished citizens of California. In their hands will rest the important task of formulating a park policy for the state, the carrying out of the survey, and the administration of funds which will be provided for acquisition of lands should the voters approve the bond issue in November. The members of the commission are: William Edward Colby, of San Francisco; Dr. Ray Lyman Wilbur, president of Leland Stanford Junior University; Henry William O'Melveny, of Los Angeles; Frederick Russell Burnham, of Los Angeles; and ex-Senator Wilbur F. Chandler, of Fresno.

After the passage of the laws, the State Parks Committee was organized into the California State Park Council, with Duncan McDuffie as chairman. The other officers and members of the Council are: Newton B. Drury, secretary; Wm. F. Bade; W. A. Brackenridge; Jesse K. Brown; Mrs. Susanna Bixby Bryant; Miss Pearl Chase; Allen L. Chickering; Wm. H. Crocker; S. P. Eastman; J. D.

[1] The bond issue passed with a large majority.

Grant; Mrs. Robert Hunter; Mrs. Harriet West Jackson; A. C. Lovekin; George W. Marston; Louis W. Myers; William H. Orrick; Miss Mary Pickford; B. F. Schlesinger; J. C. Sperry; Robert G. Sproul; and Clair S. Tappaan. All of the conservation organizations in California are cooperating in the work of the Council in creating state-wide interest in and securing approval of the bond issue.

Throughout the state there is enthusiasm for the establishment of a real state park system and a realization of its opportunity. California will undoubtedly make the most of one of her greatest assets.

State Forests

The necessity for a state forest policy was recognized in California as early as 1885, when an act was passed creating a State Board of Forestry and appropriating $5,000 for its maintenance. The three members of the Board, which functioned purely as an educational bureau, were appointed by the Governor. In 1887 its authority was expanded to include police power and the appropriation was increased to $29,500. The work of this Board was very broad and successful, but, unfortunately, in 1893 it was abolished. Had it remained active, California probably would be in the forefront of forestry development.

Until 1903 nothing was done to save the forest lands owned by the state. On the other hand, the lumbermen were investing heavily. The state disposed of the bulk of her forest holdings by the sale of her school lands for the small sum of $1.25 per acre.

At the request of the State Legislature in 1903, the U. S. Forest Service investigated California's forest resources, with the result that in 1905 an act was passed creating a State Board of Forestry, providing for the regulation of fires and the protection of public and private forest land within the State. On July 12, 1905, the first State Forester was appointed and actual work was begun.

Until 1911 the Board was active principally in educational matters and it was not until 1919 that there was any real progress. In that year the legislature passed an act appropriating $25,000 for forest fire protection for the biennium ending June 30, 1921, and also amending the act creating the State Board of Forestry. The new Board immediately inaugurated, with most favorable results, a campaign of cooperation between all forest agencies in the state. In 1921 the legislature again increased the appropriations, making possible a definite forest fire protection system, the purchase of the Humboldt Redwoods State Park, and the establishment of a state nursery.

In 1923 a bill providing an appropriation of $150,000 for the purchase of cut-over lands for state forestry purposes was consid-

ered by the legislature, but it was allowed to die, since it was felt that adequate forest protection should be provided for the entire state before state forests were acquired. However, a means of acquiring a state forest was found in 1923, when it was discovered, through an investigation, that of the many thousand acres of school lands to which California held title, a considerable area scattered throughout the various national forests were timbered. A bill authorizing the State Surveyor General to exchange this land with the U. S. Forest Service for land of equal value in one compact area was passed by the legislature and an appropriation of $15,000 was made to cover the state's portion of the cost of the exchange. Upon completion of the exchange, the land will be set aside as California's first state forest.

The Legislature of 1927 again reorganized the Board, making it a Division of Forestry under the newly created Department of Natural Resources. The new Board consists of seven members appointed by the Governor, who serve without compensation. They, with the advice and consent of the Director of the Department, formulate the forestry policies of the state. The Board nominates the state forester, who is the executive officer of the Board, and the director appoints him.

The legislature also increased the appropriations for forestry work.

Among the most important work of the Board is the protection from fires of the lands of the state outside the national forests, in which it receives the cooperation of Federal, county and private agencies. It also supervises and maintains the State Forestry Nursery, from which 40,000 to 60,000 two to three year-old trees and several thousand seedlings are distributed annually.

California cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 receives $53,450 for fire protection, and $970 for the distribution of planting stock to farmers.

The members of the Board of Forestry are: Former Governor George C. Pardee, Chairman, Oakland; Major Swift Berry, Camino, El Dorado County; A. J. Mathews, Susanville, Lassen County; W. O. Blasingame, Fresno; H. S. Gilman, San Dimas; D. Eyman Huff, Orange; and Walter Mulford, Professor of Forestry, University of California, Berkeley. M. B. Pratt is State Forester. The headquarters are in Sacramento.

Game

Fish and game protective work was begun in few states earlier than California. The Board of Fish Commissioners was established in 1870, and in 1878 its jurisdiction was extended to the protection

of game. The title of the Board was not changed until 1909, when it became the Fish and Game Commission. With the reorganization of the state government in 1927, the commission was made a division of the Department of Natural Resources. It is administered by a commission of three non-salaried members, appointed by the Governor. The commission appoints an executive officer, who, under its direction, administers all fish and game activities.

The work of protecting the wild life resources of the state is supported solely by hunting and angling licenses, fines imposed by the courts for violations of the fish and game laws, and license and privilege taxes paid by commercial fishermen and fish canners.

An interesting innovation in the work of this state department is the inauguration of a Bureau of Research. This bureau handles all problems of bird and animal diseases. Scientists are being added to the force and it is hoped that any form of disease breaking out among the wild life of the state may be cured successfully through their studies and efforts.

Another important phase of the work is being done by the Bureau of Education, which is endeavoring to teach the public not to violate game laws. This theory of prevention through education was first put into practice in 1914. A staff of lecturers is employed, who utilize moving pictures in the schools. Field trips for organizations are provided. The teaching of nature study in the schools is stimulated. Under a cooperative arrangement with the National Park Service, nature guide service has been conducted very successfully in the Yosemite National Park.

Broad plenary powers have not been conferred upon the division. The 1927 Legislature gave the Director of the Department of Natural Resources, with the consent of the Governor and upon recommendation of the Fish and Game Commission, power to close any lake or stream to trout fishing until new legislation becomes effective. No action was taken regarding game. The commission believes it important that it be given authority, after proper hearings, to curtail seasons, diminish the bag limit, close streams, and generally to safeguard the fish and game.

The patrol force numbers 125 regular deputies and about 400 special deputies. These special wardens serve without compensation and are selected upon recommendation of a regularly constituted sportsmen's organization, with the approval of the regular district captain of patrol.

An interesting cooperative agreement has been worked out with the U. S. Forest Service, under which that service aids in the enforcement of the fish and game laws, and the division in turn renders aid when there are forest fires.

There are now 2,371,720 acres of land in California's thirty-seven game refuges. This area undoubtedly will be increased through the provision of the new hunting license act that one-third of all revenue from hunting licenses shall be spent in the acquisition of land for game refuges and public shooting grounds. No hunting is permitted on the refuges.

The game refuges set aside by act of the legislature, on privately owned land and the public domain, are:

1A, Siskiyou County, 23,000 acres,
1B, Modoc County, 84,400 acres,
1C, Modoc County, 22,400 acres,
1D, Trinity County, 82,560 acres,
1E, Shasta County, 34,000 acres,
1F, Lassen County, 47,000 acres,
1G, Tehama County, 53,100 acres,
1H, Plumas County, 38,700 acres,
1I, El Dorado, Calaveras County, 102,000 acres,
1J, Amador County, 59,000 acres,
1K, Fresno County, 36,500 acres,
1L, Tulare and Kern counties, 35,200 acres,
1M, Kern County, 82,500 acres,
1N, Modoc-Siskiyou counties, 35,200 acres,
1O, Eldorado County, 68,500 acres,
1P, Plumas County, 55,700 acres,
1Q, Lassen County, 307,800 acres,
2A, Mendocino, Lake, and Butte counties, 35,800 acres,
3A, Santa Cruz County, 4,300 acres,
3B, San Benito and Monterey counties, 14,000 acres,
3C, Santa Barbara County, 40,300 acres,
3D, Ventura County, 132,000 acres,
3E, Santa Clara County, 3,800 acres,
3F, Contra Costa County, 10,240 acres,
3G, San Mateo and Santa Clara counties, 8,500 acres,
4A, Los Angeles County, 293,000 acres,
4B, Los Angeles County, 347,000 acres,
4C, Orange and Riverside counties, 99,840 acres,
4D, Riverside County, 70,200 acres,
4E, San Diego County, 51,900 acres,
4F, Los Angeles and Kern counties, 46,080 acres,
4G, Riverside County, 19,200 acres,
Mount Tamalpais, Marin County, 28,000 acres.

Among the game on refuge are black-tailed deer, mule deer, bear, sage hens, antelope, quail, upland game and mountain sheep.

The members of the commission are: I. Zellerbach, president, San Francisco; George B. Clarkson, Los Angeles; Reginald G. Fernald, Santa Barbara. The executive officer and attorney is Eugene D. Bennett, and the office headquarters are in San Francisco.

Colorado

Colorado is well supplied with recreational areas through its national parks and national forests, which comprise 13,249,150 acres, and its municipal parks. This probably constitutes the prime reason why no state parks have been created. The Denver Mountain Parks, all of great beauty and with a total area of 6,483 acres, are developed for hiking and camping. They serve the purpose of state parks and their development is similar. Citizens from many states are represented each year among their visitors. Colorado Springs has a similar development, a portion of the Pike National Forest, donated to it by Congress. With its varied topography and its many areas of great scenic beauty, Colorado could establish an unusually fine state park system.

State Forests

The forested area of Colorado is practically intact. There were originally 11,000,000 acres of forest, of which approximately 1,000,000 acres of cut-over land have not been restocked. Nearly one-half of the remaining 10,000,000 acres has never been cut. The state-owned timber lands consist of about 110,000 acres in scattered tracts, practically all in school sections.

Interest in forest conservation developed in the state when Colorado was drafting its constitution for admission to the United States. Frederick J. Ebert, a member of the constitutional convention, proposed that provisions for the protection of forests be written into the constitution, suggesting such phases of activity as the establishment of a state bureau of forestry, including a state nursery, and the modification of the tax laws. Mr. Ebert's plan was not adopted in full, but sections were passed for the preservation of the forests of the state, providing that lands planted with forests and consequently increased in value should not be subjected to increased taxation for a limited time. Mr. Ebert was joined in his advocacy of a forest program by Col. Edgar T. Ensign, of Colorado Springs. As a result of their united work, in 1884, the Colorado Forestry Association was formed at a convention in Denver. In 1885, through

the endeavors of this association, the legislature established the office of forest commissioner. Colorado was one of the first states to create such an office. No salary was provided, although comprehensive duties were outlined. Colonel Ensign was appointed commissioner, accepted the office, and in the two years he held it accomplished remarkable work.

The Colorado Forestry Association continued its work for forestry, endeavoring, first, to secure control of public timbered lands for Colorado, and, when unsuccessful, to convince Congress that action should be taken to save the Federal forests. This organization is said to have played a large part in the establishment of the Federal Forest Reserve policy.

In 1905 the Colorado College in Colorado Springs established a School of Forestry with a thorough course of training. The Colorado Agricultural College followed, in 1909, with the introduction of a four-year course in professional forestry.

The laws of 1911 contained many provisions relating to forestry. The Board of Agriculture was given authority to appoint a state forester, who also acts as professor of forestry at the State Agricultural College. The duties of the office are "to direct the management of state forest reserves, if any; to collect and publish all data relative to the forests and other timber growing in the state; to cooperate, so far as practicable, with the Department of Forestry of the United States Government; to promulgate and publish rules for the prevention of forest fires; to study the best conditions for preserving and growing of trees and forests." He is also instructed to cooperate with the State Board of Land Commissioners, in the granting of permits for cutting timber and in general to act as a consulting forester to the state. An appropriation of $10,000 was made for the biennium.

Several years ago the state forester hoped to establish a state forest through exchange with the National Forest Service of state school lands for a compact area. An inventory of the state timber holdings was made and the proposal was taken up with the Forest Service. Negotiations were not successful, however, due to the fact that some of the timbered school sections are underlaid with valuable deposits of coal.

The state-owned forest lands are included within the national forests and the state forester is now considering a proposal to the Forest Service which would permit it to handle the state lands, the state paying the cost of such service. It is believed this plan would involve less expense than direct administration of the lands by the state.

No specific regulations have been formulated in regard to the recreational use of state forest lands. They are, in effect, under the same rules as the national forests, since they are indistinguishable from the lands surrounding them. If the exchange plan were to go through it is the intention to develop the state forests only for the continuous production of wood and forage, since the State Forester believes the national forests and parks serve the recreational need of the state.

Colorado cooperates with the Federal Government under the Clarke-McNary Act, and received, during 1928, $1,500 for the distribution of forest planting stock.

The state appropriation for forestry work during 1928 is $5,000 and, in addition, part of the salary and expenses of the Extension Forester, Chas. A. Scott, Colorado Agricultural College, Fort Collins. The state pays $2,000 annually for extension forester, the Federal Government $1,500. The total state money available for forestry annually is $7,000.

Prof. W. J. Morrill has been State Forester since 1915. His headquarters are at the Colorado Agricultural College, in Fort Collins.

Game

As early as 1877 Colorado was interested in the propagation of fish. The office of state fish commissioner was established in that year; jurisdiction was extended to game in 1891. The present Department of Game and Fish was created in 1899. The department is headed by a game and fish commissioner, who has authority to appoint a field superintendent and, with the approval of the Governor, five chief game wardens. The commissioner may appoint not exceeding forty deputy game wardens for a limited time, who are compensated for their services, and special game wardens, who serve without pay and have the powers of a deputy warden. These appointments must have the approval of the Governor.

Moneys received from fees and licenses of all kinds and from all other sources are deposited in the state treasury in a fund known as the game cash fund. This fund is used for all expenses of the department and is really a revolving fund, since the unexpended balance does not revert to the treasury at the close of each biennial period but can be used by the department.

There is constant protection for bison, buffalo, elk, antelope and mountain sheep, which it is against the law to capture, wound or kill. The commissioner is directed, in the event of the failure of a natural food supply, to provide such food as may be necessary for these animals. There is an open season on deer from October 12 to 15.

A public or private lake or park for the propagation or sale of game may be established when favorable action is taken by the commissioner upon an application. The parks or lakes owned or controlled by a municipality to which the public is admitted free are considered public parks and no fee for a license or permit may be charged by the department for such a park. All other parks and lakes are deemed private. Game may be exchanged with the commissioner or a permit may be issued by the commissioner for the capture alive of game for a park. Licenses for the creation of these parks may be granted for two or for ten years, and may be renewed.

Colorado has no state-owned game preserves, but a number of preserves of large area have been established, principally on National Forest land. The following are the preserves which have been created:

Colorado State Game Refuge, in the Colorado National Forest, created in 1919, 745,920 acres;

Colorado Antelope Refuge, Larimer County, created 1921, 65,280 acres;

Denver Mountain Parks State Game Refuge, in the Denver Mountain Parks, created 1921, 470,400 acres;

Pike's Peak State Game Preserve, in the Pike National Forest, El Paso County, created 1921, 208,960 acres;

Spanish Peaks State Game Preserve, in the Spanish Peaks Division of the San Isabel National Forest, created 1921, 79,360 acres;

Snowmass State Game Refuge, in Pitkin and Gunnison counties, created 1923, 96,640 acres;

North Park State Game Refuge, Jackson County, created 1923, 18,560 acres;

Ouray State Game Refuge, San Miguel and Ouray counties, created 1923, 53,120 acres;

Williams Fork State Game Refuge, in the Arapahoe National Forest, created 1923, 77,440 acres;

Gunnison State Game Refuge, in the Gunnison National Forest, Gunnison County, created 1923, 277,760 acres;

Cochetopa State Game Refuge, in the Cochetopa National Forest, created 1923, 300,800 acres;

Poncha Pass Game Refuge, in the Cochetopa National Forest, Chaffee and Saguachee counties, created 1923, 60,160 acres;

Royal Gorge State Game Preserve, Fremont County, created 1923, 65,600 acres;

Cameron Pass State Game Refuge, in Jackson and Grand counties, created 1925, 63,360 acres;

Waugh Mountain State Game Refuge, Fremont County, created 1925, 26,880 acres;

Buffalo Peaks State Game Refuge, in the Leadville National Forest, created 1925, 192,640 acres;

Newlan Creek State Game Refuge, Fremont and Custer counties, created 1925, 48,800 acres;

White River State Game Refuge, Rio Blanco and Garfield counties, created 1925, 460,800 acres.

R. G. Parvin is State Game and Fish Commissioner. His office is in Denver.

Connecticut

Connecticut has no supreme example of natural beauty or natural wonder for a national park, nor a forested area approaching in size that required for a national forest. It is probably for this reason that the three phases of state activity in which we are interested—parks, forests and game—have made such excellent progress.

Game work is progressing rapidly. It is under the administration of a Board of Fisheries and Game. Park and forest work are under one commission—a State Park and Forest Commission, though each division of the work is handled by a separate branch. Lands for state parks are purchased directly by the Park and Forest Commission. Lands for state forests are purchased by the Commission on Forests and Wild Life, composed of the State Board of Fisheries and Game and the State Park and Forest Commission, holding joint sessions and controlling special appropriations. Lands for game preserves also may be purchased. This form of organization which ties together the park, forestry, and game conservation movements has proven most satisfactory.

Game work began in 1895. In 1913 the State Park Commission was created and functioned as such until 1921, when it became the State Park and Forest Commission, with power to appoint a state forester.

The State Park and Forest Commission consists of six members appointed by the Governor—two in each biennial period. The Board serves without pay, and each member has a term of six years. There is one ex-officio member, the forester of the Connecticut Agricultural Experiment Station. The State Forester is appointed by the commission. He has charge of the enforcement of laws for the protection of forests and all duties relating to forestry.

The State Park and Forest Commission has authority to acquire, maintain, and administer areas for recreation. It may acquire land for parks by gift, purchase, or condemnation. Any town or munici-

pality is authorized to transfer the control of any open spaces it may own to the commission under terms mutually agreeable.

In 1925 the State Commission on Forests and Wild Life was created, composed of the State Park and Forest Commission and the State Board of Fisheries and Game. This commission has charge of the purchase of lands for state forests and may acquire lands for game preserves.

The members of the State Park and Forest Commission are: Lucius F. Robinson, of Hartford, Chairman; Edward H. Wilkins, of Middle Haddam, Secretary; Walter O. Filley, of New Haven, Treasurer; John E. Calhoun, of Cornwall; Arthur L. Peale, of Norwich; Herman H. Chapman, of New Haven; Harris Whittemore, of Naugatuck. Austin F. Hawes is State Forester, Arthur V. Parker is General Superintendent of State Parks. The Field Secretary of the Commission is Albert M. Turner. Offices of the Commission are located at 255 Capitol Avenue; P. O. address, Drawer 2115, at Hartford.

The members of the State Board of Fisheries and Game are Frederick C. Walcott, of Norfolk, president; Karl C. Kulle, of Suffield; and Charles E. Wheeler, of Stratford. John W. Titcomb is superintendent, and his headquarters are at Hartford.

State Parks

Interest in state parks developed as early as 1887, when the Israel Putnam Memorial Camp Ground was established. This park comprises 203 acres. It is of historical interest, since General Putnam's Division of Washington's Army camped there during the winter of 1778. The park is not administered by the State Park and Forest Commission, but is under the charge of a separate state commission of seven members appointed by the Governor.

The next state park was established in 1911, when the late Charles H. Senff, of New York, donated 180 acres on Mount Tom as a park area. When this land was accepted it was placed in charge of the state forester. The general assembly of that year recognized the need for park development and appointed a special commission of three members to study the subject and report to the succeeding assembly. As a result, the assembly of 1912 established the State Park Commission. This commission, in 1923, was changed to the Connecticut State Park and Forest Commission.

Connecticut has acquired 37 state parks, with a total of 8,339 acres. They have been secured through gifts of land and money and from appropriations made by successive biennial legislatures. In several instances condemnation has been used. Bond issues for park purchase have been constantly advocated by the commission,

since it believes that land values will increase yearly and it is desirable to immediately acquire all lands needed to complete the proposed system. Such bond issues have not been approved by the assembly and the Governor.

Practically all of the park holdings are key purchases and will require further additions before extensive developments can be planned. Connecticut's park program is in the formative period, limited by inadequate appropriations.

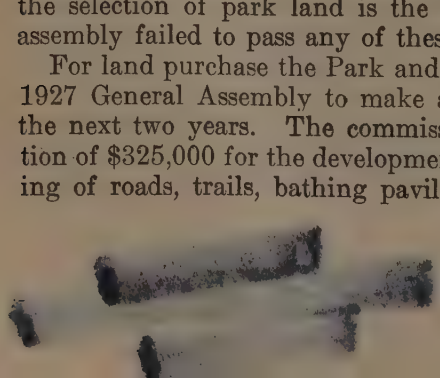
Camping in all state parks is free for one or two nights. When campers desire to remain for a longer period, a charge is made which varies with the accommodations. Several group camps, which were financed through private subscription, have been granted leases for ten-year periods. The buildings erected are subject to the approval of the commission. The commission does not approve of the concession method of developing the parks, since it believes there should be no private profit from a public park.

The state parks are open to winter sports, but are not used extensively, since the commission has not undertaken their development for such sports. The parks within reach of the state highways are used to some extent for snowshoeing and cross-country and open running skiing.

A system similar to the revolving fund has been established in Connecticut. All revenues from state parks go to the state treasury, but are added to the sum appropriated by the legislature for the maintenance of state parks, thus returning to the State Park Commission for its use in developing the park areas. The revenue from several of the parks, such as the Hammonasset Beach and Wharton Brook Parks, is quite large.

A careful survey of the state for park needs has been made by the commission. The specific needs of Connecticut are to enlarge existing parks, to provide two or more shore parks similar to Hammonasset Beach, to establish a rough woodland park for the Hartford-New Britain section, and the creation of riverside parks along the Housatonic, Connecticut and Thames rivers. A proposal in 1927 embodied in a legislative bill to create a shore park in the eastern section was defeated. In the Assembly of 1927 numerous special bills for the creation of a state park were introduced, but believing the selection of park land is the function of the commission, the assembly failed to pass any of these bills.

For land purchase the Park and Forest Commission requested the 1927 General Assembly to make an appropriation of $750,000 for the next two years. The commission also asked for an appropriation of $325,000 for the development of existing parks, for the building of roads, trails, bathing pavilions, shelters, camps and similar



improvements. Unfortunately, the assembly, while favorable to state park development, could not see the importance of expanding the system so rapidly and appropriated only $70,000 for use in acquisition of more lands. A special appropriation of $100,000 was made for additions and improvement at Hammonasset Beach.

The total appropriation for park purposes amounted to $370,000, an increase of $130,000 over that of two years before.

The state monuments are also under the supervision of the commission, though until 1923 they had been under the administration of the Comptroller. There are four state monuments—the John Mason, Israel Putnam, Nathan Hale, and Nathaniel Lyon—all of historical importance.

Forests

Connecticut has a system of fifteen state-owned forests which cover a total of 39,744 acres. These forests vary in size from 130 to over 6,000 acres. They are incomplete in areas, and when properly blocked out will contain from 2,000 to 20,000 acres, depending on the particular forest.

Effort for the preservation of forests began first in 1901, when an ex-officio state forester was appointed by the Connecticut Experiment Station. The same year the assembly created the position of state forester. The first forest in the state was purchased in 1903. In 1911 an area on Mount Tom was donated to the state and placed under the administration of the state forester. In 1921, through the initiative of the Connecticut Forestry Association, forestry work was placed within the province of the State Park Commission, and its title was changed to the State Park and Forest Commission. The commission has authority to appoint the state forester, who is charged, under the provisions of the general statutes, with all duties relating to forestry.

In 1925 the acquisition of land for state forests was placed under a Commission of Forests and Wild Life, created by the assembly. This is a super-commission composed of members of the State Park and Forest Commission, and the State Board of Fisheries and Game. Its function is to purchase wild lands which must not exceed in cost $10 per acre unless a larger price is approved by the Board of Control. To carry out the forest acquisition program, the Commission of Forests and Wild Life asked for $200,000 for the next biennial period. It received $100,000 from the assembly, with an added appropriation of $25,000 for executive work. The commission estimates 15,000 acres of forest land can be purchased, so that the forest system should total 50,000 acres, or one-fourth of the area advocated.

Fire protection is one of the most important phases of state for-

estry work. It is estimated that 24 per cent of the total damage in New England through forest fires occurs in Connecticut, a state which does not have a large forest cover. With a total area of over 3,000,000 acres, practically 1,500,000 acres are now forested. In this area there is no virgin timber. Fire protection has been carried on through a warden system. The 1927 Assembly gave the forester authority to organize special fire-fighting companies similar to fire companies in towns. Cities were also charged with the duty of suppressing grass or brush fires within their borders.

The state cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $6,530 for forest fire protection, $2,000 for the distribution of forest planting stock, and $1,000 for farm forestry extension. The total state appropriation for all branches of forestry work for the next two years is $275,000.

The state forester carries on an extensive educational program. Motion pictures are available, and lectures are given before all types of organizations. A mimeographed publication is issued from time to time, and numerous special bulletins are printed. The forester cooperates with the Board of Education, holding school planting bees in various towns. Exhibits illustrating different phases of forestry are available for fairs, expositions, and schools.

Up to the present time all cutting on state forests is done with the object of improving the forest rather than for profit. The revenue derived from cutting is deposited in the state treasury, but it is available for additional work on the forests. Approximately 500,000 trees are planted annually. The state forests are open for recreational use and are developed for camping through the provision of open stone fireplaces and firewood. There is no charge for camping space. One hundred miles of trails have been opened. The forests are well patronized.

One of the most interesting forests in the state is the People's Forest, created in 1922. It is the result of the inauguration, several years ago, by the Connecticut Forest and Park Association, of a plan to purchase a forest and dedicate it to public use. The People's Forest Fund was established, and subscriptions were requested. A slogan of "$8.00 buys an acre" was adopted. This was the average price of land in northern Connecticut at that time, although many individual acres cost more than that sum. After a careful canvass of the state by the state forester and officers of the association, a tract of 2,200 acres in Barkhamsted, Litchfield County, was selected. By the fall of 1924 sufficient funds had been acquired for the purchase of 400 acres. This land was dedicated in that year. Through additional subscriptions the area has been increased to

1,241 acres. Although the primary purpose of this forest is to grow timber, it will be developed for outdoor recreation. A trail system has been laid out. Camp grounds are being developed, and roads and other facilities will be provided as the demand requires. The price of the land has now gone up, and subscriptions are being taken at $10 an acre. It is the hope of the State Forestry Department and the State Forest Association that it will not be long before the purchase of this forest area will be completed. All expenses incidental to the purchase of the land have been borne by the Connecticut Forest and Park Association and the State Forestry Department.

Game

Connecticut was one of the first states to embark on a program for the protection of its fish and game. In 1867 the appointment of Commissioners on Fisheries was authorized by the legislature. Jurisdiction was extended to game in 1895, and in 1913, through a reorganization, the State Board of Fisheries and Game was established. The commission consists of three members appointed by the Governor, who served without pay. The executive officer is the superintendent, who has general supervision over the protection, propagation, and distribution of game and fish, under the direction of the Board.

The game laws of the state are enforced by wardens. The appointment of a state warden in charge of this service was authorized in 1925. Under the state warden there are eight county wardens and about 80 deputy wardens. The appointment of a state warden contributed greatly to the success of law enforcement. The cooperation of sportsmen, farmers and game clubs has been excellent, and their active aid has been given the wardens. The work of the wardens is not entirely confined to law enforcement. They are called on to do such work as feeding birds in the winter time, lecturing to organizations, and distributing fish and game.

Education plays a large part in the program of the Board. An educational program was started in 1923. Lectures are given before the schools, sportsmen's clubs, church societies, and other organizations. They are particularly well received in the schools. An educational exhibit of mounted birds, classified and arranged in cases, has been prepared and is loaned to schools and libraries and placed in public show windows. The exhibit is in great demand in the public schools.

Connecticut does not own any game preserves, but operates them under lease which is subject to renewal. Hunting is prohibited on all preserves. The wardens of the district in which the preserves are

located protect them from fire. Reliable trappers are authorized to trap fur-bearers during the open season. Vermin control is considered an important factor in the maintenance of these sanctuaries.

The state game preserves are as follows:

NEW HAVEN COUNTY

North Haven, 1,245 acres, created in 1922, lease expires in 1932; Hamden, 351 acres, created in 1922, lease expires in 1932; Guilford, 51 acres, created in 1912, lease expires in 1932; Wallingford, 304 acres, created in 1921, lease expires in 1931; Oxford, 69.3 acres, created in 1925, lease expires in 1955; Middlebury, 816 acres, created in 1908, lease expires in 1934.

FAIRFIELD COUNTY

Redding and Weston, 1,200 acres, created in 1914, lease expires in 1934; Danbury, 60 acres, created in 1921, lease expires in 1931.

LITCHFIELD COUNTY

Litchfield and Morris Game and Bird Sanctuary, 4,630 acres, created in 1923, lease expires in 2022; Cornwall and Goshen, 213 acres, created in 1926, lease expires in 2025; Litchfield, 180 acres, created in 1926, lease expires in 1929; Morris, 580 acres, created in 1926, lease expires in 1929; Watertown, 565 acres, created in 1925, lease expires in 1935; Thomaston, 200 acres, created in 1926, lease expires in 1927; Woodbury, 173 acres, created in 1922, lease expires in 1932.

MIDDLESEX COUNTY

East Haddam, 420 acres, created in 1926, lease expires in 1931.

TOLLAND COUNTY

Mansfield, 1,500 acres; Hebron, 1,200 acres, created in 1923, lease expires in 1928.

NEW LONDON COUNTY

East Lyme, 700 acres; Salem, 1,704 acres, created in 1926, lease expires in 1931.

HARTFORD COUNTY

Suffield, 350 acres, created in 1925, lease expires in 1930. Shade Swamp Sanctuary, Farmington, about 500 acres.

A number of wild life refuges are maintained at private expense. One of the most interesting is the waterfowl refuge on the property

of Charles D. Lanier in Westchester. The meadow known as Babcock Meadow has been flooded by building a dam forty years ago at its northern end. Approximately one-third of this flooded area is sufficiently open for fishing in boats. The rest is forest, swamp, or marsh land. In this sanctuary are black ducks, mallards, woodduck, mud hens, teel, and sprigtails.

The Commission on Forests and Wild Life may accept gifts of land for the propagation and protection of wild life or for public shooting grounds. It may also purchase or lease land for this purpose. The commission may also declare any state park or forest a game refuge.

Among the game generally distributed throughout the state are pheasants, ruffed grouse, woodcock, quail, Hungarian partridges, shore birds, ducks, geese, rabbits, gray squirrels, and a number of fur-bearing animals, such as mink, muskrats and fox. The Hungarian partridges were first introduced into the state in 1913, when 14,111 were imported. This first distribution was not very successful, though the Board has received reports of a number of the birds in various places. These birds were again distributed in 1923, but the results have been most unsatisfactory.

Since there are so many divergent views relating to game laws, and the state desires the cooperation of the sportsmen, it has adopted the practice of calling a conference of sportsmen previous to the convening of the legislature. At this conference the policies and problems of wild life conservation are discussed and the views of the sportsmen expressed by vote. All measures to be introduced into the legislature are taken up at these meetings. The department has found this method very valuable, with the result that only the best measures are incorporated in the bills introduced in the legislature.

Delaware

Delaware has no state parks, nor has there been any movement for their creation. The first step toward the conservation of outdoor resources was taken in 1911, when the Board of Game and Fish Commissioners was created. Game work has progressed steadily from that time. Nothing active was done to protect the forest land of the state, which was diminishing rapidly, until 1925, when a Forest Conservation Commission was appointed by Governor Robert P. Robinson to make a study of possibilities of the state and report to the 1927 legislature. As a result of this report, a State Forestry Department was created. There are, however, plans for the establishment of state forests, but it will probably be a number of years before the state will provide facilities for outdoor recreation. A

majority of the population in the state is centered in the city of Wilmington, and their needs are well taken care of by an excellent municipal park system which includes outlying areas along Brandywine Creek.

State Forests

With an area of 1,257,600 acres, Delaware has only 320,000 acres of forest land remaining. In spite of the need for the protection of these lands, steps for their supervision were not taken until 1921, when this work was placed under the State Board of Agriculture. In 1925 a Commission for the Conservation of Forests was created by the legislature. This commission was to consist of four persons appointed by the Governor, who would serve without compensation. It was directed to make investigations concerning the conservation of state forests and recommend action to the next session of the state legislature.

No funds were made available for the performance of this work. The commission planned to make only a brief report to the next legislature. However, Senator T. Coleman du Pont became interested in the protection of the forests of Delaware and offered financial assistance in order that the commission might thoroughly investigate conditions and make adequate recommendations.

A report was prepared and a forestry bill drafted for submission to the legislature in 1927. The original bill was defeated in the senate on its last reading, but in the last days of the session a forestry bill which did pass was substituted. This act carried with it little more than the creation of a State Forestry Department, with an appropriation of $5,000 per year for two years. The department is administered by a commission of five members appointed by the Governor, of which the Governor is one member. This commission appoints a state forester who is the executive officer of the department.

It is the present plan of the department to establish several forest demonstration plots along the main highways in different sections of the state and to carry on additional work in the rural communities. Most of its work will be in forest protection and forest tree seedling distribution. It is the intention of the department to establish state forests provided legislation and funds are made available. The original forestry bill submitted in 1927 and defeated provided for the transfer to the state as a state forest of state-owned sand-bar land adjacent to Delaware Bay and the Atlantic Ocean. The area contains approximately 12,000 acres. Some sections of the land are covered with a good growth of loblolly, scrub and pond pine, though a majority is a barren

waste of sifting sands. The passage of this bill would have made possible Delaware's first state forest—the land would have been reforested and made available for recreational use. The act did not contain this provision.

The passage of the forestry law enabled Delaware to qualify for Federal aid under the Clarke-McNary Act. During 1928 the state will receive $765 for forest fire protection and $2,000 for the distribution of forest planting stock.

The commission consists of Robert P. Robinson, Dover, Chairman; Geo. W. Butz, Jr., Wilmington; John C. Darby, Frederica; Dr. G. Layton Grier, Milford; Willard Springer, Jr., Wilmington. William S. Taber is Secretary of the Commission and State Forester. The headquarters of the department are in Dover.

Game

In Delaware the first movement for the conservation of the outdoor resources of the State culminated in 1911 in the creation of the Board of Game and Fish Commissioners. From 1879 to that date the enforcement of game laws was entrusted to the Delaware Game Protective Association, showing that an interest in this work had existed for a number of years.

The Board of Game and Fish Commissioners is appointed by the Governor and consists of three members, one from each of the counties of the state. The Commissioners serve without salary, although they receive expenses for necessary travel. The work of the Board is supported from a fund made up of moneys received from the sale of hunting and fishing licenses and from fines and forfeitures for violations of the game and fish laws.

A chief game and fish warden is appointed by the Board. He is charged with the enforcement of the fish and game laws of the state. He also has authority to make arrests for violation of these laws and to appoint game wardens who have similar power. All deputy sheriffs, constables, policemen, or other peace officers of the state are ex-officio deputy game wardens.

An interesting law recently passed prohibits the running at large of worthless dogs, with the result that rabbit, quail, and birds generally are increasing. It is unlawful for the owner of dogs to permit them to run at large at any time of the year. As a result of this law, the department reports the lives of an untold number of wild animals were saved.

The establishment of game refuges on all state lands and on state, county and municipal parks is authorized. It is unlawful for any person to hunt on such lands. A wild duck preserve has been

created on the Indian River Bay below a straight line from Oak Orchards to Rehoboth Bay. The wild ducks have complete protection in this area, and it is unlawful to hunt them or shoot at them from any boat. The land is under the control of the Public Lands Commission.

Among the game in the state are geese, rails, mud hens, ducks, shore birds, woodcock, grouse, pheasant, partridges, quail, and the dove.

The Board of Game and Fish Commissioners consists of John F. Lynn, Wilmington, President; Wilbert Rawley, Leipsic, Vice-President; and John S. Isaacs, Milford, Secretary. Chester V. Townsend is Chief Game Warden, with offices in the State House at Dover.

Florida

Florida has neither state forests nor state-owned game preserves. The only state park is administerd by the General Federation of Women's Clubs, and not by the state. There are four historical parks or monuments under local commissions, viz: Dade Memorial Park, Olustee Memorial Park, Port St. Joe Memorial Park, and Natural Bridge Memorial Park.

The establishment of a state forest system will probably follow the creation of the state forestry board by the 1927 session of the legislature. The movement for the development of a comprehensive state park system has not met with success, although the passage of a bill authorizing such action was secured. The bill carried no appropriation and interest in the movement has waned. It is true that many private developments offer recreational opportunity, but the state should preserve some of its most scenic areas for future generations and develop them for the use of its own citizens.

Game work was late in beginning but has made rapid progress in the past two years. Several leased preserves have been established as permanent breeding grounds, and recreational opportunities will be available through the establishment of public shooting grounds.

State Parks

Although possessing many areas of great beauty and possibility for state park development, Florida has only one state park—the Royal Palm State Park—containing 1,920 acres. And this park is not under the administration of the state but of the General Federation of Women's Clubs. It is made up largely of state land, ceded to the Federation by the legislatures of 1915 and 1921.

The state also possesses four historical parks, or monuments, each under a local commission.

A movement for the establishment of a centralized state park system began in 1925, fostered primarily by A. A. Coult, then manager of the State Chamber of Commerce at Jacksonville, and by S. Bryan Jennings, now a member of the State Forestry Board and one of those through whose efforts this board was created. The Florida Beautification and Forestry Association, which has since ceased to function, as well as the General Federation of Women's Clubs, aided in arousing support of the proposal. The state park bill was drawn by Mr. Jennings and passed the legislature in 1925. It has been inoperative since, due primarily to lack of funds. No appropriation was made, or has since been made, and as a result nothing has been accomplished toward the development of a state park system.

As originally drawn the bill provided for the sale of 5,000 acres of land under the Internal Improvement Fund to raise moneys to establish the park system. This section was unfavorably reported.

Under the provisions of the act the park system is to be owned, operated and controlled by the Trustees of the Internal Improvement Fund of Florida in the same manner as is provided for the control of other lands held by this body. It is composed of the Governor, the Secretary of State, the Comptroller, and the Commissioner of Agriculture. The park system will be under the active administration of the Commissioner of Agriculture, subject to such rules and regulations as may be made by the Board of Trustees of the Internal Improvement Fund.

The commissioners of any county in the state are authorized by the park act to acquire by gift or purchase from their general funds areas suitable for park purposes. Lands obtained for such purpose may be conveyed to the Trustees of the Internal Improvement Fund to form a part of the Florida state park system. Authorization to both counties and the trustees of the fund to acquire Government land was included at the suggestion of the National Conference on State Parks. The above provisions made possible the acquisition by Duval County of a tract of 120 acres, known as St. John's Bluff, on the St. John's River, about ten miles below Jacksonville.

Many opportunities exist for the creation of state parks, and a number of suggestions have been made, but no funds have been appropriated by any legislature since the act was passed.

Nathan Mayo is Commissioner of Agriculture, with offices in Tallahassee.

State Forests

Effort for the establishment of a state forestry administration was not successful until 1927. Sustained action by the Florida Forestry Association over a number of years was largely responsible for the creation of the State Forestry Board in June of that year.

The act created a Board of five non-salaried members, to be appointed by the Governor. The bill designated Tallahassee as official headquarters, but authorized the holding of meetings at other places in the state. The major duties of the Board are fire prevention; the gathering and dissemination of information in regard to forests, their care and management; and the enforcement of forest laws and cooperation with the Federal, state and county departments and individuals. The employment of a state forester was authorized, with the qualification that he must have been technically trained in the profession of forestry and have had at least two years' experience in practical and administrative work of the profession. The forester is charged with the carrying out of the above duties, subject to the approval and supervision of the Board.

The sum of $25,000 was appropriated for the next two years.

Through the enactment of this legislation it will be possible for Florida to qualify for cooperation with the Federal Government under the Clarke-McNary Act.

The members of the Forestry Board are H. J. Wicker, Coleman; A. A. Payne, Panama City; J. B. Glenn, Chipley; S. Bryan Jennings, Jacksonville; and Simon Williams, Jacksonville.

Harry L. Baker was appointed State Forester of Florida in February, 1928. His headquarters are at Tallahassee.

Game

The wild life of Florida is one of the great assets of the state, but definite steps for its preservation were not taken until recently. The first law for the protection of wild life was enacted as long ago as 1828—a law prohibiting fire hunting west of the Suwannee River. However, not until 1925, a hundred years later, was a general act creating a department charged with the enforcement of such measures passed. In the meantime the growing sentiment for needed protection led to the enactment of one hundred and sixty local conservation laws, all left in force by the law of 1925, although one hundred and thirty were in conflict with its provisions. The Legislature of 1927 repealed these local laws. This gave the state a law uniform in its provisions and application.

The present Department of Game and Fresh Water Fish was created by the law of 1925. The Governor was given authority to appoint a state game commissioner as the executive officer of the department. It is the duty of the commissioner to enforce all laws of the state relating to game, non-game birds, fish and fur-bearing animals. He is directed to visit each county in the state at least once a year.

In 1927 the Wild Life Conservation Commission was created by the legislature for the purpose of assisting and advising the state game commissioner in the establishment of hatcheries, game farms, breeding grounds, and game refuges, and in the acquisition of state game lands. The members of the commission were appointed by the Governor. It consisted of a representative from each congressional district and one member from the state at large, all of whom were required to have an intimate knowledge of wild life.

The expenses of the Department of Game and Fresh Water Fish are met from the state game fund, which is made up of moneys resulting from carrying into effect the Game Code, such as license fees for fishing, hunting, and trapping. A portion of the fees for certain licenses are paid to the school fund in the county in which the license was issued. Approximately one-fourth of the total amount collected since the enactment of the 1927 law has been paid into the county school fund. The state game commissioner and his deputies are allowed the same fees as sheriffs for making arrests, and the same mileage for conveying prisoners, but the amount of the fine is deposited in the fund of the county where conviction is secured. The mileage and other fees are deposited by the commissioner to the credit of the game fund.

Immediately upon the organization of the department, the state was divided into three districts for purposes of administration. Florida is now divided into twelve districts. A district game commissioner is in charge of each. Under this supervisory staff is a division of deputies assigned to the counties. The commissioners and deputies are charged with enforcement of the game laws in their respective districts.

The Commissioner has authority, with the approval of the Governor and the Wild Life Conservation Commission, through gift, purchase, or lease, to acquire lands suitable for the protection and propagation of game, non-game birds, or fur-bearing animals, as well as lands for hunting purposes or game farms, which will be known as state game lands. No lands may be purchased at a price to exceed $10.00 per acre.

State game refuges for the protection and propagation of game may be established by the commissioner on any of the state game lands, on private lands, or on national forests. It is unlawful to hunt game within such refuges. For the purpose of establishing public shooting grounds the commissioner has authority to lease from owners the shooting privileges of lands surrounding the game refuges at a cost not to exceed 5 cents per acre a year. Public shooting grounds may also be established on the state game lands. No property acquired as state game lands or any private lands used as game refuges or shooting grounds are exempt from taxation.

An alligator reservation has been set aside on Tomoka Creek and River in Volusia County. It is also unlawful to kill, capture, maim, or injure in any way alligators in certain of the lakes, canals, rivers and marshes in Marion and Lake counties.

The commissioner believes that through the establishment of breeding grounds the state can be rapidly restocked with game. Following the enactment of the 1927 law, breeding grounds, the total area of which reaches 4,406 square miles, have been set aside. These areas are in Calhoun, Leon, Lafayette, Alachua, Clay, Duval, St. Johns, Flagler, Marion, Seminole, Brevard, Polk, Hillsborough, Manatee, Sarasota, De Soto, Highlands, Gadsden, St. Lucie, Palm Beach, Hendry, Lee, Collier and Dade counties. Breeding grounds have also been established in Walton, Okaloosa, Washington, and Santa Rosa counties, the area in each county adjoining that in the next county, thus providing one large continuous area for breeding purposes.

It is the purpose of the Department to acquire state-owned game lands as soon as funds become available.

J. B. Royall is Commissioner of the Department. His headquarters are in Tallahassee.

Georgia

There has been practically no development of state recreational opportunities in Georgia. The one state forest will be utilized as an outdoor playground, but no state park system has been established nor does there seem to be at the present time a demand for such a movement. Game work, too, was slow in beginning, but with the continual rapid increase in receipts the growth of the work is practically assured. Probably the creation of the state parks will closely follow the development of these two important movements.

State Forests

Forestry had its beginning in 1921. In that year an act was passed establishing a State Board of Forestry, to be composed of

five ex-officio members and four citizens appointed by the Governor. No funds were appropriated for the work of the board, which was directed to report to the General Assembly recommendations it deemed proper for forestry work. The first report of the board was made in 1922.

The result of the above legislation was the passage of the Forestry Administrative Act in 1925. This was the first active forestry measure. It named the Governor ex-officio chairman of the board, and the Secretary of State, the State Geologist, and the Director of Extension at the State College of Agriculture as ex-officio members to serve with five citizens of the state to be appointed by the Governor. The law requires that the appointees represent the women's civic organizations of the state, and the farming, lumbering, manufacturing or timberland owning interests within the state.

The law provided for the appointment of a state forester; means for the prevention of forest fires; the creation of state forests and their care and management; the encouragement of reforestation of cut-over lands and timber growth on land not suited for farming or other purposes; and for an educational campaign.

Taxes are assessed against persons dealing in lumber and other forest industries of the state, and these receipts go to the state forestry fund. Money collected for this fund is used for the administration of the forestry act.

Definite work was begun in forestry education. Bonnell H. Stone Director of Education, served without compensation, but a paid director will be employed. A plan for the introduction of forestry studies in the public schools was worked out with the State Superintendent of Schools. Illustrated lectures, motion pictures, colored charts and maps will be supplied as the work develops. The newspapers of the state, the various press agencies, and associations such as the Georgia Forestry Association have extended valuable cooperation.

Important legislation known as the "Forestry Contract Act" failed of passage by the 1926 General Assembly. The bill provided that land might be withdrawn from the records of the tax collector for a period of five to forty years for tree growing. When the crop was removed, a tax of 10 per cent was to be levied on it by the state, of which 40 per cent would go to the county, 20 per cent to the state, 20 per cent to the Forestry School at Athens, and the remainder to a fund for the support of the State Forestry Board. This measure was considered one of the most important ever introduced because of its encouragement of private forestry and the probability that it would aid in making the Forestry Board self-sustaining.

With a total area of 37,584,000 acres, Georgia has 23,000,000 acres of forest land. Of this less than 1,000,000 acres are virgin timber and more than 6,000,000 acres are idle and unproductive. Approximately 15,000,000 acres of the forest area of the state is in the Pine Belt.

The Board received several offers to donate land to the state for state forests. This necessitated the adoption of a state forest policy. For acceptance for state forest purposes, a tract of land must be of value as a practical demonstrational area and of sufficient size; the possibilities of the purchase of additional acreage must be good; and the areas should provide a practical demonstration of each phase of forest activity.

Georgia's first state forest was a gift to the state by the Pfister and Vogel Land Company, a corporation with headquarters at Blairsville. Including as it does streams, springs and waterfalls, the area makes an ideal camping ground and will be developed for recreation as well as economic forestry.

The state cooperates with the Federal Government under the Clarke-McNary Act and will receive $39,130 for fire protection during 1928.

The Board of Forestry is composed of Governor L. G. Hardman, as President; Geo. H. Carswell, Secretary of State; S. W. McCallie, State Geologist; J. Phil Campbell, Director of Extension of the State College of Agriculture; Bonnell H. Stone, of Blairsville; J. Leonard Rountree, Summit; Alex K. Sessoms, Cogdell; C. B. Harman, of Atlanta, and Mrs. M. E. Judd, of Dalton. B. M. Lufburrow is Secretary of the Board and State Forester. He may be reached at Atlanta.

Game

Game work began in Georgia in 1911, with the creation of the Department of Game and Fish. The laws covering the operation of the Department were inadequate. In 1924 an act was passed creating a Board of Game and Fish, consisting of three members. A commissioner of game and fish is the executive officer.

The Department receives no appropriation from the state. It is self-supporting. Its funds, which are increasing yearly, are received from the sale of hunting licenses. A liberal sum from the receipts is placed in the state treasury each year for use in the common schools. The Commissioner recommends the enactment of a law requiring a fishing license in order that a fund may be available for use in the establishment of fish hatcheries and for the propagation of fish to restock the state's streams.

Courtesy Conservation Department of New York.

PICNICKING IS AN IDEAL WAY IN WHICH TO USE OUR STATE PARKS—A PARTY AT WATTERSON'S POINT, ST. LAWRENCE RESERVATION, NEW YORK

The game laws are enforced by county wardens, who receive no salary but are compensated by commissions they receive from the sale of hunting licenses and on fines in cases prosecuted by them. This system is said to have many disadvantages. It results in little attention being paid to violation of the hunting and fishing laws. The game commissioner also is authorized by law to employ special deputies on full-time salary, and during the past year from ten to fourteen state-wide deputies devoted their entire time to patrol and enforcement work. They also render a valuable service through educational work in their respective territories.

The location of a game farm for the propagation of native bob-white quail, wild turkeys and other game birds is being studied. It will probably be in operation during 1928.

The Board has approved the establishment of game preserves and the Commissioner recently entered into a contract with the U. S. Department of Agriculture for the location of a state game refuge on 14,000 acres of land in Fannin and Union counties. This preserve will be known as the Cherokee State Game Refuge. It will be restocked with deer, wild turkey and other game. The Board anticipates this preserve will in time furnish excellent recreational opportunities. Steps will be taken to create similar preserves in other sections, but particularly in the coastal counties, since they are the natural habitat of the white-tailed deer, wild turkey, fox and gray squirrel, quail and other game. Land in the section is rapidly being purchased and converted into private game refuges. The resulting restriction of the right of the natives to hunt and fish has led to a demand for the provision of public opportunities for hunting. The Commissioner recommends that the suggested coastal game preserve be closed to hunting for a number of years, but that provision be made for one or more public shooting grounds in this section of the state.

There are more game birds and animals in all sections of Georgia than for many years past. Quail has increased materially, as have squirrels, wild turkeys and deer; the latter are now found in many counties where they have not been seen for years. The Commissioner has recommended the enactment of a law prohibiting the shooting of doe. Georgia is one of the few states which permits the shooting of this animal. Efforts to restock certain areas in the state with the bob-white quail have proven very successful. Through the cooperation of landowners, farmers and sportsmen, the birds were placed on their lands, which were closed to shooting for a period of three years. More than 150,000 acres of land were restocked

through the assistance of approximately 200 landowners. Additional areas are now being stocked.

Broad plans have been made for future work of the Department, such as a simple elementary codification of the game and fish laws in order that the reader may easily interpret them; an appeal to the newspapers of the state to continue their cooperation in arousing public interest, a state-wide campaign to organize hunting and fishing clubs; the improvement of the enforcement system; and a general study of the propagation of game and fish, giving special consideration to the needs and advantages of hunting preserves.

The members of the commission are M. O. Dunning, Savannah, Chairman; Charles S. Arnow, Kingsland, and D. M. Byrd, Atlanta. The State Game and Fish Commissioner is Peter S. Twitty. The headquarters of the Commission is at Atlanta.

Idaho

There are still portions of Idaho practically inaccessible, with virgin forests, rugged peaks, lakes and streams—areas lending themselves admirably to state park and forest uses. The heavier stands of timber and the large lakes are located in the north, the sagebrush deserts to the south.

That there is not more effort to create state parks is probably due to the fact that there are over twenty million acres in national forests, which are open to camping, fishing and hunting, and undoubtedly provide ample opportunity for the people of the state for relaxation in the out-of-doors. There is a large acreage in preserves and forests, but only a small percentage of land is in parks. Both state parks and forests are comparatively recent developments, but game work began a number of years ago.

State Parks

Idaho has one large state park and two reservations. The Heyburn State Park includes the lower reaches of the St. Joe River, said to be the highest navigable stream in the world, and Chatcolet, Hidden and Benewah lakes; the Payette Lake Reservation lies in a heavily wooded country, and the Lava Hot Springs Reservation contains radio-active waters which are said to have remarkable curative powers.

The state park was created out of the Cœur d'Alene Indian Reservation by act of Congress approved April 30, 1908. The bill was sponsored by the late Senator W. B. Heyburn, for whom the park was named. Purchase of the land was approved by the Idaho legislature through an act approved March 16, 1909, and it was

secured from the United States by payment of $1.25 per acre. Some of the land in the park is supposed to have been traded for lands in the southern part of the state. The act provides that the park must be maintained forever by the state for recreational purposes and guarantees the freedom of the public in the enjoyment of its opportunities for pleasure.

Some 5,505 acres of land and 2,333 acres of water comprise the park. When the Washington Power Company constructed its dam at Post Falls, Idaho, they raised the waters of the valley about eight feet and greatly enlarged Lake Chatcolet. The present shore, which was formerly old meadow land, has been sanded, making a fine bathing beach.

The income from hotel, other concessions and cottage sites is increasing yearly and goes into a revolving fund for use in developing the park. An appropriation is also received from the state for improvement and operation. Methods of development which will place the park on a paying basis are being studied. The park income will undoubtedly be increased when a road is constructed around Chatcolet Lake connecting with the North and South Highway and forming another link between the highway and Spokane. This road is being surveyed. There are now approximately ten miles of road within the park.

During 1926 Kraemer Channel, lying within the park and connecting St. Joe River and Lake Chatcolet, was completed. This channel is about 1,800 feet long, 50 feet wide and 15 feet deep. It enables large boats running between Cœur d'Alene and St. Maries to make stops within the park.

There are now 13,200 square feet of floating docks within the waters of the parks. Another interesting feature is the hotel, floating on huge cedar logs.

Cottage and camp sites along the lake shores have been in great demand and fourteen lots on Payette Lake were sold recently for $7,125. Summer homes have been built. The Lake View Camp site on the lake was leased to people who spent several thousand dollars in improvements, resulting in increasing popularity of the reservation.

Heyburn State Park is under the administration of the State Department of Public Works, Boise; J. D. Wood, Commissioner, and under the direct supervision of Superintendent Carl M. Kraemer, of Plummer. The Payette Lake Reservation is under the jurisdiction of the State Board of Land Commissioners, Boise, of which I. H. Nash is Commissioner; and the Lava Hot Springs Reservation is under the Department of Public Welfare.

State Forests

The background for forestry in Idaho is found in the fact that the state has been practicing forestry on its own timber lands for a decade or more, and in the unusually efficient fire protective system developed by private owners. However, it was not until 1925 that the legislature passed a law inaugurating a forest policy and creating the State Cooperative Board of Forestry and the office of State Forester. The Board is composed of the Governor, as chairman; the Attorney General, the Secretary of State, the State Auditor, the State Superintendent of Public Instruction, the State Land Commissioner, the State Commissioner of Reclamation, the Dean of the School of Forestry at the University, and four citizens of the state appointed by the Governor. Two of the four appointees are nominated by the timber protective associations, one by the live-stock industry, and one by the U. S. Forest Service. The unwieldiness of the Board is offset through executive committees of three members each chosen by the Board to represent it in the field.

Idaho owns only 9.10 per cent of the timber within her boundaries—61.3 per cent belonging to the Federal Government. The holdings came into the possession of the state through land grants made by the U. S. Government to state institutions. In addition to 3,000,000 acres granted for public school purposes, 668,080 acres were granted to institutions, such as colleges, the penitentiary, and the asylum. The first selection of timber land was made in 1883 under an old territorial grant. From 1891 to 1908 selections were made each year, when all grants except a little over 2,000 acres had been selected. In 1926, through the passage of H. R. 171, the State of Idaho was permitted to select 2,015.48 acres of choice timber land in Clearwater County, thus completing the original grants to state institutions. These holdings, which range from small areas to large bodies containing thousands of acres, are scattered throughout the state.

Under the new law the state is divided into forest protective districts in order adequately and effectively to maintain protection. Thirty forest protective districts have been created, embracing most of the land classified as forested. Many of them comprise the national forests, while others are located on land owned either by the state or individuals. They are supervised by fire wardens, paid by the owners of forest lands within their respective districts.

The districts are:

Boundary	Potlatch	Weiser
Kaniksu	Clearwater	Payette

Priest Lake	Orogrande	Challis
Pend d'Oreille	Craig Mountain	Boise
Clarksfork	Maggie Creek	Sawtooth
Tesemini	Selway	Lemhi
Hayden Lake	Nez Perce	Targhee
Mica	Idaho	Caribou
Wolf Lodge	Southern Idaho	Cache
Cœur d'Alene	Salmon	Minidoka

In Priest Lake section the state has one compact body of land consisting of 177,545 acres in Bonner County, which is administered as a state forest. This is a beautiful tract of virgin forest in the northern part of the state. It was acquired from the Government through the U. S. Forest Service in exchange for school lands and is one of the finest scenic regions in the west. Lots can be leased on the lake shore by those desiring to use this region for recreation, but no recreational improvements have been made by state authorities.

Idaho cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 received $35,608 for fire protection and $1,171 for the distribution of forest planting stock. The state appropriation for forestry work was $100,000 for that period.

Mr. Ben Bush is State Forester, with headquarters in Moscow.

Game

The Legislature of 1899 established the Fish and Game Department, under the direction of the Governor and the Fish and Game Warden. The Game Warden is the active executive officer and is charged with the supervision of all fish and game work and the carrying out of the provisions of the laws regarding this most important activity.

Approximately 3,000,000 acres have been set aside as game preserves and refuges. Virtually all these lands lie within the national forests and are neither state-owned, privately owned, nor subject to location under the Federal law. They are merely open ranges and are not restricted even for grazing purposes. They are extremely beneficial to the conservation of big game, and still do not restrict hunting, since the national forests are surrounded with hunting grounds.

The following preserves have been created by statute:

The Big Creek Game Preserve in Lemhi County, 1917, 142,000 acres.

The Big Lost River Game Preserve in Custer and Blaine counties, 1917, 534,000 acres.

The Black Lake Game Preserve in Adams County, 1925, 217,000 acres.

The Clearwater Game Preserve, Clearwater and Shoshone counties, 1925, 233,000 acres.

The Crooked Creek Game Preserve in Lemhi and Clark counties, 1925, 220,000 acres.

The Lewiston Orchards Game Preserve in Nez Perce County, 1915, 13,565 acres.

The Middle Fork Game Preserve in Valley, Lemhi and Idaho counties, 1926, 275,000 acres.

The Payette Game Preserve in Boise County, 1909, 280,000 acres.

The Pocatello Game Preserve in Bannock and Power counties, 1919, 31,875 acres.

The St. Maries Game Preserve in Benewat County, 1925, 18,500 acres.

The Salmon River Game Preserve in Idaho County, 1923, 195,000 acres.

The Selway Game Preserve in Idaho County, 1917, 544,000 acres.

The Soda Point Game Preserve in Caribou County, 1927, 4,480 acres.

The Soldier Mountain Game Preserve in Camas and Elmore counties, 1926, 500,000 acres.

The Warm Springs Creek Game Preserve in Blaine County, 1926, 62,000 acres.

In addition to the above preserves, other lands have been set aside or closed by proclamation of the warden.

Under the present administration, all big game, including elk, deer, caribou, mountain goat, mountain sheep and antelope, have shown a marked increase over previous years. This increase is attributed to vigorous law enforcement. During the past five years a strenuous campaign has been put on by the department to eradicate predatory animals, which take a heavy toll of big game each year.

Mr. R. E. Thomas is State Game Warden, with office in Boise.

Illinois

The State park program of Illinois has gone forward and broad programs for the development of game preserves and state forests have been adopted. There is ample opportunity in the state for the development of each phase of this work.

The popular conception of Illinois is that it is a prairie state. Quite different from the prairie section is the southern part of the state, where in one place an extension of the Ozarks rises to an

elevation of 1,100 feet. In many places here the streams have cut deeply into the soil and down through its upper rock formations, forming picturesque crags, canyons and bluffs. Some marshes and forest-covered bottom lands still remain adjacent to the main streams.

State park development is under the administration of the Department of Public Works and Buildings. Both game and forestry work, except extension work in forestry among farmers, are under the newly created Department of Conservation. This department has authority to advance in every practical manner the interests of fishing and hunting in the state, to promote, protect, and conserve game and bird life; and to take measures for the promotion of planting, encouragement, protection, and conservation of forests, and the establishment of state forests. In the two years since its creation it has made excellent progress.

Gus H. Radebaugh is Director of the Department and R. B. Miller is Chief Forester. The headquarters of the Department is at Springfield. Cornelius R. Miller is Director of the Department of Public Works and Buildings, which has its headquarters at Springfield.

State Parks

Illinois has a variety of scenic and historic areas. The Lincoln Homestead State Monument, created in 1887, was the first reservation set aside in the state. It is said to be the only residence ever owned by Abraham Lincoln. The first state park, reserved in 1903, was Fort Massac. This fort was built by the French in 1757.

Interest in the establishment of a comprehensive system of state parks has developed rapidly in Illinois. Until a few years ago the parks owned by the state were administered by a commission. They are now under the Department of Public Works and Buildings. This Department has power to make rules and regulations for the administration of state parks; to employ custodians, keepers, and other necessary assistance; to construct and maintain roads, paths, trails, bridges, and camp sites in any park; to provide sanitary shelters for the public and living quarters for the custodians, and to replant any devastated native land areas in the state parks. It was directed to investigate all lands and regions in the state embodying forest-covered bluffs, woodland area or other natural scenic beauty, and report to each session of the General Assembly regarding the desirability of purchasing any such lands for use as a state park. The members of the Department and such employees as the Director may designate are vested with police powers for the enforcement of the laws of the state in the state parks.

The state park movement was greatly accelerated by such organizations as the Friends of Our Native Landscape, the Illinois Forestry Association, and the Prairie Club. Headed by Jens Jensen, the Friends of Our Native Landscape made a thorough survey of the scenic and recreational resources of the state, with recommendations for the acquisition of a number of parks. The Starved Rock Park, created in 1911, and located 100 miles southwest of Chicago, is the largest of Illinois' eight state parks. The predominating feature of the park is the rocky eminence, popularly known as Starved Rock, on which, in 1683, Sieur de La Salle and de Tonti built a fort, naming it Fort St. Louis in honor of their king. This fort was the headquarters of the French for nearly thirty years. The park is well developed for the use of the public. On the bluff to the south, overloking the valley, are well-equipped camp grounds. Near the base of the rock a modern hotel, accommodating 200 guests, has been built. There is a bathing pool, a garage, and a dancing pavilion. Near the hotel is an annex with cottages, and close by a well-equipped playground for children. The hotel is operated under concession. Excursion boats and motor busses are also operated under concessions, and a percentage of the receipts from these facilities go to the Department of Public Works and Buildings.

Other State parks of particular interest are the Old Salem Park near Petersburg, the Cahokia Mounds, and the White Pine Forest in Ogle County. Salem Park is located on the site of the home of Lincoln during his earlier days. The Department plans to restore the old town of Salem in its entirety. The age of the mounds in the Great Cahokia Mound Park is unknown. Monks Mound is said to be the largest prehistorical, artificial earthwork in the United States. It is estimated it would have taken 1,000 men five years to build this mound alone.

The national monuments of the state will be increased by the addition of the Pierre Menard Monument in memory of Pierre Menard, a member and presiding officer of the territorial legislature, who, in 1818, was elected the first Lieutenant Governor of Illinois. The last General Assembly appropriated $10,000 for the purchase of the home of Pierre Menard, at Fort Gage, in Randolph County.

The Cook County Forest Preserve

One of the best developed county forest preserves in the country is located in Cook County. The district consists of 45 tracts totaling

30,000 acres of picturesque woodland, with lakes, rivers, hills, and bridle paths. It encircles the city of Chicago and provides outdoor recreation for its residents.

The district was established by popular vote in 1914. Bond issues, totaling $17,560,000 up to 1925, made possible the acquisition of the land and improvements. The tax levy on the county in that year for retiring bonds and operating expenses was $2,628,000. The revenues from interest, golf receipts, rentals, and concessions were $91,000. Every form of entertainment is provided in the preserves, such as camping facilities, swimming, fishing, boating, bathing, athletic fields, tennis courts, and picnicking spots; there are concrete roads winding through the various tracts; drinking fountains, comfort stations, and shelters are available; golf links are constructed as fast as the demand requires, and baseball diamonds are laid out in nearly every section. There are tempting trails leading into the heart of the area. The preserves are used during the winter months, and provide skating on the river, tobogganing, and snowshoeing. A new ski slide has been built at Palos, just west of Swallow Cliff.

The preserves are administered by the Board of Commissioners of Cook County, of which Anton J. Cermak is President. Ransom Kennicott has been Chief Forester since the organization of the district. Its headquarters are in the County Building, Chicago.

State Forests

Slow growth marked the development of forestry in Illinois. The movement began in 1909, when the Illinois State Laboratory of Natural History investigated forest conditions in the sections of the state where forests were the most extensive. The United States Forest Service cooperated in this survey. A great deal of information was collected at that time, but there was little public interest in the work. For the next ten years practically nothing was accomplished. In July, 1919, a forester was appointed by the State Natural Historical Survey. At the same time another study was undertaken—a comprehensive inventory of forest resources and compiling data on the use of wood in the state. This survey continued from 1921 to 1925, under four foresters. All wooded areas of five acres or more were surveyed and mapped. Detailed and accurate information on forest resources was collected, and may be found in several bulletins published at Urbana.

In July, 1925, the Department of Conservation was created. This department includes the fish, state forestry and game interests. The appointment of a state forester was authorized. A forestry bill,

known as the Springer bill, also passed the same session of the legislature. It authorized the acquisition of state forests by gift, lease, or purchase. Condemnation authority was granted. Forestry may also be practiced on the 5,000 acres of public shooting grounds and game preserves purchased by the department and state forests may be designated game or fish sanctuaries. The act appropriated $100,000 for the biennium beginning July 1, 1925, for the acquisition and improvement of tracts of land. A state forester was appointed on August 1, 1926, and since that time the outlining of a forest program and policy has gone steadily forward, based on information already collected. Also, on July 1, 1927, an agreement was entered into by the State Natural History Survey, the Illinois Agricultural Experiment Station, and the U. S. Forest Service for the employment of an extension forester under section 5 of the Clarke-McNary Act.

Illinois' first and only state forest was donated to the state in 1927. It was a gift from Colonel and Mrs. C. C. Judy, of Menard County. The property, of approximately 72 acres, includes a tract of primeval timber. It contains unnumbered walnut trees, stately oaks, hickory, hard maple, and more than two score of other varieties.

The state forester believes the creation of state forests is vital to the welfare of the state. With an original forested area of over 15,000,000 acres, there remain only approximately 3,000,000 acres of forest land. These forests, when established, will serve as game refuges, will guard the headwaters of many small streams, will be an example to owners of wood lots, and will serve the people of the state as recreational areas.

An educational and publicity campaign was the first work undertaken by the state forester. Illustrated talks are made before schools, clubs, and civic organizations. Many publicity articles are prepared for press bureaus, club publications and newspapers. A book, "Forest Trees of Illinois—How to Know Them," has been published. This book describes over ninety trees of the state in such a way that they can be recognized by any boy or girl. It has been in great demand in the public schools, 21,000 copies having been distributed free of charge. A third edition will be published.

Comprehensive plans have been outlined, among them the mapping, examination, improvement, and protection of the forests on the game preserves, studying the relation of the forests to the animal and bird life on the preserves, the improvement of game lands by planting of trees and shrubs, the acquisition of state forests, and the development of the state forests for recreation.

The annual state appropriation for forestry work under the Conservation Department is $67,200, including $25,000 for land. Illinois has qualified for cooperation with the Federal Government under the Clarke-McNary Act in forest fire protection, $10,000 being spent on fire protection, the Federal allotment for reimbursement being $850. It is estimated that there are 350,000 acres of forest land in the state in need of protection. During 1928 she will receive $1,980 for farm forestry extension.

Game

Constructive effort for the preservation and propagation of the wild life of Illinois began in 1899, when the office of State Game Commissioner was established. The law was revised in 1913 and the Game and Fish Conservation Commission was created. A second revision in 1915 established the office of Game and Fish Commissioner. In the year 1917, under the Civil Administrative Code, the administration of the state government was rearranged into nine departments. The office of Game and Fish Commissioner was abolished and a Game and Fish Division was placed under the State Department of Agriculture, under the Chief Game and Fish Warden. Through the enactment of legislation in 1925 the duties of the Division of Fish and Game were delegated to the newly created Department of Conservation, which, among its other duties, is charged with the promotion, protection and conservation of fish and bird life and the acquisition of lands.

A fish and game fund is created from fees, fines and penalties collected under the provisions of the game code. Appropriations from this fund are made to the Department of Conservation by the legislature to be used for game and fish propagation and protection and the purchase of land.

Excellent cooperation has been extended to the department by the sportsmen of Illinois through their leagues and other organizations, which have been of great aid to the department in the enforcement of the game and fish laws.

The wardens of the department collected during 1925, the first year of the life of the department, approximately $24,000 in fines. More than 6,000 pounds of illegally taken fish were confiscated and distributed to state charitable institutions. During its first year under the Department of Conservation the division took in approximately $500,000 in fees from hunting and fishing licenses.

Since 1923 the Division of Game and Fish, and later the Conservation Department, has had authority to establish refuges wherever it deemed such action necessary for the protection and propa-

gation of game birds and wild animals. Land for such refuges may either be purchased or leased by the state at a nominal rental of $1 a year for each parcel. It is unlawful to hunt, kill, destroy, or trap any birds or wild animals found on such reservations. The division also has authority to set aside areas, lands, and bodies of water as rest grounds or refuges for water fowls and shore birds, and to prohibit their hunting, trapping or killing when found on such refuges.

In 1923 the General Assembly appropriated $100,000 for the purchase of suitable refuge areas, and the building and maintenance of hatcheries and game preserves. Out of the income of the division $200,000 was appropriated for use in reclamation and the propagation of game and fish. Approximately 5,000 acres of land for game preserves has been purchased under this provision. Game refuges were created in Woodford County and at Horseshoe Lake.

The most constructive measure for the acquisition of game preserves, fishing grounds and public shooting grounds was passed by the 1927 General Assembly. A bill calling for a $20,000,000 bond issue for the above purposes was passed by an overwhelming majority and will be submitted to a referendum vote at the general election on November 6.[1] Under plans for the acquisition of land 2,500 acres of rough upland will be bought in every county of the state where such land is available, and 100,000 to 150,000 acres of overflow lands along the rivers throughout the state will be purchased. These lands will be divided into sanctuaries for game birds, wild animals, and all types of song birds, and into shooting and fishing grounds, open to any person holding a hunting and fishing license. While reforestation is not mentioned in the provisions of the law, it will form an important part of the development of the game preserves. The areas acquired will all be developed for recreational use and will be available to the public for swimming, camping, fishing, hiking, and hunting, and meetings of groups and organizations. They will afford ample opportunity for nature study. Additional taxes will not be levied either to pay the interest on the bond issue or to retire the bonds. This will be met from the receipts of the hunting and fishing licenses. The present fees will not be raised until 1937, when it will probably be necessary to increase the $1 hunting fee to $2, and the 50-cent fee for fishing to $1. This constructive program, if approved, will bring many benefits to Illinois, since lands will be reforested, game and birds will be

[1] Final vote was 912,144 for the bond issue, which was lost since a majority of votes cast for members legislature is necessary for approval.

preserved and public shooting and fishing grounds will be provided. The areas will also act as reservoirs for excess flood waters. One of their greatest uses will be the opportunity they offer to the people of Illinois for outdoor pleasure.

Indiana

The administration of Indiana's recreational areas is centered in one department, the Department of Conservation. All divisions of the state dealing with land uses for recreation cooperate and work in harmony. So important does the department believe recreation to the well-being of citizens of the state that the game preserves and the state forests will have a degree of recreational use.

The state forestry movement preceded the beginning of state parks with the creation in 1903 of the State Forestry Board, and the same year the first state forest was created. Interest in state parks began prior to the time of the State's Centennial in 1916. For some time the purchase of the present Turkey Run State Park as a monument to the State's Centennial had been urged by a group led by Colonel Richard Lieber, the present director of the department, and Mrs. Juliet V. Strauss, of Rockville. Their efforts culminated successfully in 1916, when the legislature recognized the existing semi-official State Park Commission and appropriated $20,000, which, combined with $30,000 of private subscriptions, made possible the purchase of McCormick's Creek Canyon and Turkey Run. Then followed the creation of the Department of Conservation by an act of the 71st session of the Indiana General Assembly in 1919. It has under its jurisdiction the Divisions of Land and Waters, Forestry, Geology, Fish and Game Entomology. The original act was amended by the 72d session of the legislature in 1921 to create a Division of Engineering.

It is the belief of the present administration that recreational areas should be made self-supporting—just as is done in any well-conducted business—that a state department should be an agency of social and economic service. The policy of the department is: "The principle of making those enterprises self-sustaining which otherwise could only be maintained by an ever-increasing amount of taxes."

The department proves the success of its operations, since in eight and one-half years the total expenditures from tax funds amounts to $1,548,549.84, while the total of earnings, contributions, and cash donations for the same period aggregate $2,009,929.24, an

amount 30 per cent in excess of the cost to taxpayers. Keeping in mind the expenditures, the department estimates that the actual book value of public preserves taken over and the improvements thereon amounts to $2,024,698, a sum largely in excess of the total amount contributed by the taxpayers. Counting book values alone, the above figures mean that the management of the Department of Conservation has cost the taxpayer nothing, but for every tax dollar invested he has received back a dollar and a half in assets, besides service free.

The Department of Conservation

The Conservation Commission of the Department consists of Dean Stanley Coulter, Chairman; Col. Everett L. Gardner, Dean David A. Rothrock, and Martin R. Goshorn. The executive officers are Richard Lieber, Director, and Charles Goodwin Sauers, Assistant to the Director. State parks are administered by the Division of Land and Waters, of which Capt. Charles G. Sauers is Acting Chief. Forestry work is administered by the Division of Forestry, Charles C. Deam, State Forester, Indianapolis. Mr. George N. Mannfeld is the Superintendent of Fisheries and Game and is in charge of the work of the division. The offices of the department are located in the State House at Indianapolis. In addition to the divisions mentioned, the Department of Conservation has Divisions of Entomology, Geology and Engineering. The organization of the department permits highly efficient conservation service through close correlation of effort and avoidance of duplication.

State Parks

Indiana has six state parks, all of varied charm and beauty, carefully selected for their fitness for such development, parks which are utilized in such a way that they make available to the public the beauties of the area without in any way detracting from the natural landscape. Three principles entering into the selection of parks are that they must have unusual scenic features, that they must be accessible, and that they should comprise not less than 500 acres.

The state parks conserve exceptional and characteristic types of scenery. Turkey Run represents the finest of that interesting landscape for which Sugar Creek is famous; precipitous cliffs and wild, rugged, majestic landscapes are features of Clifty Falls; and the typical lake country is represented in Pokagon. The finest of all, of course, are the remarkable sand dunes at Lake Michigan, where a rare combination of terrain and native flora and fauna is preserved.

Indiana's parks have been obtained through private contributions, appropriations, and in the exceptional case of the dunes by a special tax levy and private subscription. The constitution of the state prohibits the issuance of bonds by the state, though one of the newer parks, the Pokagon, was purchased by an issue of county bonds authorized by an enabling act of the legislature. Here, $35,000 was raised and the area was deeded to the state by Steuben County in 1925. Additions to Turkey Run have been purchased in part through condemnation, though this method is used only in extreme cases.

After a park is provided with paths, water, roads, sanitary facilities, and an adequate hotel building, by funds derived from appropriations and popular subscription the department puts into operation a plan whereby the parks pay their own maintenance. Believing the people who enjoy and use them are willing to aid in developing them, an admission charge is made. A gatekeeper is installed during the park season and a charge of 10 cents is made for each person, except children under eight years of age. During a continued stay in the park the fee is paid only upon the first entrance.

The parks are developed with one or more service areas in each. Within the main group are the hotels, restaurants, lunch stands, shelter houses, cottages, garages, auto parking space, laundries, septic tanks, garbage incinerators, etc. Hotels and restaurants are leased on the concession plan to carefully chosen managers. They are built by the state and all buildings and equipment belong to it, other than the kitchen, pantry and bedroom equipment, which are furnished by the concessionaire, who is also responsible for the machinery in use. A rental of 10 to 15 per cent of the cost is paid for the lease privilege. The hotels, while simple in construction and furnishings, are most comfortable and accommodations are to be had at $2.50 to $3.50, American plan.

Within the second service area are provisions mainly for campers and picnickers, such as pure drinking water, camp cooking places, sanitary toilets, etc. A charge of 25 cents per day per automobile is the camping fee. Wood is provided and permanent fireplaces and driven wells are located at central points. Purity of drinking water is safeguarded. Safe bathing places along river banks and lake shores are indicated. Well defined service tracts handle large numbers of visitors with comparative ease.

The income from all sources is retained in a revolving fund, which is available only for park uses.

All amusement devices and public dance halls are excluded, but the natural sports, such as hiking, swimming, horseback riding and fishing, are encouraged, together with opportunities for nature study. All parks are provided with ample trails, plainly marked with metal discs; small trail maps, selling at five cents each, are available. Automobile roads are kept to a minimum within the parks, since they are expensive of construction, mar the landscape and are not conducive to hiking.

The parks are all policed by men trained by the department. Men from surrounding districts are usually employed for the extra force necessary on week-ends and are available at the same price as day labor. Again the value of all bureaus being centered in one department is stressed, for the wild life of the park is protected by the game warden service of the state.

Regulations are posted regarding the defacement of property, pulling of flowers, and injury of shrubbery or trees, but little trouble is encountered, since there is a marked advance throughout the state in the appreciation of scenic spots. This has been fostered by a wide distribution of booklets and other publicity.

The parks are all wild life reservations and are used widely by organizations and individuals for nature study. Nature guide service has been installed in three of the parks. Classes from the universities, both in Indiana and Illinois, come for various periods. McCormick's Creek is the location of the Purdue University Summer Engineering Camp for two months. From Indianapolis south the season in the parks is about four months. It is planned to develop Pokagon State Park for winter sports, since there the winters are more severe. It is possible that the Dunes Park will also have this development when the hotel is completed.

The Dunes State Park

One of the most important state park projects, not only in Indiana but in the entire country, is the development of the Indiana Dunes State Park for the use of the great crowds of visitors which seek it. During the summer of 1927, with little equipment available, there were 125,000 paid admissions. The main service area will be located in the western end of the park and will contain a beach house, inn, parking area, camping spaces, commissary stores, and park headquarters. An entrance drive will run direct to the large parking space immediately adjacent to the beach. The inn to be erected will ultimately have between four and five hundred rooms. Of the over 2,200 acres the service area will occupy only about 100

acres and the remainder will be kept in its native condition and will be accessible only by foot trails.

The first attempt to acquire the dunes for park purposes was in 1916, when a bill was introduced in Congress for its establishment as a national park. The bill failed of passage. In the meantime efforts were made to raise funds by subscription, and, in 1923, the Indiana Legislature passed a law providing a tax of two mills, beginning in 1924, for a period of eight years, to provide approximately one million dollars to be devoted to the purchase of the dunes. The law required that a member of the Senate and a member of the House sit with the Conservation Commission in the purchase of the lands, and Hon. Emmett F. Branch and Hon. Thurman A. Gottschalk were named. In Chicago a committee headed by Everett L. Millard undertook to secure subscriptions to be applied to the purchase. Large contributions were also made by the late Judge Elbert H. Gary, Julius H. Rosenwald, Samuel Insull, Jr., and others. The Indiana Dunes Purchasing Board, with Col. Everett L. Gardner as chairman, has acquired 2,185 acres, with a frontage on Lake Michigan of three and one-fourth miles.

Park Additions

Two park areas were added to the state park family in 1928, making a total of eight state parks.

The Donaldson Woods Park was made possible through an act of the 1927 Legislature, which turned over to the state 188 acres formerly controlled by the Indiana University. This exchange was contingent on the addition of a sufficient acreage to establish a park of 500 acres. Early in July, 1928, the Lehigh Portland Cement Company, of Allentown, Pennsylvania, deeded to the state 288 acres adjoining the original area. Lawrence County, in which the park is situate, issued bonds and bought an additional 539 acres, making a total of 1,015 acres. The area is almost entirely wooded with fine virgin hardwood timber, tulip trees and white oak predominating. It contains a large cave with at least two miles of corridors and rooms. A stream flows out of one cave entrance into the other and traverses the cave area in which are found certain specimens of blind fish. The park will be developed for outings, picnics and nature study.

In the counties of Clay, Greene and Sullivan bonds were issued and approximately 1,000 acres of land lying partly in each county were purchased from the proceeds. The area was deeded to the state as a state park late in July, 1928. It is in what is known as the coal mining area of Indiana and has a rugged terrain with

young woods. The principal feature of the park will be the construction of a 60-acre lake which will afford opportunities for fishing and boating in a section where such recreation is not possible, due to the smallness of streams and the dryness of the late summer.

The purchase is also contemplated of some eighty miles along both banks of the Tippecanoe River as a game preserve, state park or state forest. This is the state's finest fishing stream and one of its most picturesque.

County Park Laws

The 1927 Legislature passed two laws with reference to counties and parks. The first law provides that any county in the state may purchase or receive as a gift, lands for park purposes, to be operated as county parks. The purpose of this law is to permit the preservation of local areas which are not of state park caliber but are a factor in the local recreational scheme.

The second law provides that any county may issue bonds up to a certain amount to purchase lands which are to be deeded to the state for state park purposes. Before any project is consummated the Governor and the Director of the Department of Conservation must approve the area as a state park.

State Monuments

A number of notable monuments have been set aside in Indiana. Here tracts of historic and scenic value of limited extent and use come under the monument classification. Typical of this type of development are battlefields, forts and burial places of noted people. Where an area has no possibilities of recreational use because it is too small, even though scenically beautiful, it is called a monument.

A new monument will probably be added to the list in the Pigeon Roost Massacre Monument, several acres of ground of historical significance in the pioneer history of the state. Scott County, which has charge of it, is considering turning it over to the state in order that it may be properly cared for.

State Forests

The first forestry organization was formed in 1903, the same year the state's first forest was acquired. On this forest, the Clark County State Forest, a most extensive and thorough set of investigations into the growth of hardwood trees has been carried on for the past twenty years.

The most important forestry legislation was enacted in the 1925 session of the legislature, the Lafuze bill. This law provided for the levying of one-half mill on each $100 worth of property in the state, thus creating a forestry fund. The appropriation first became available in 1926. It is estimated to amount to approximately $30,000. The fund will be spent in the purchase, supervision and development of state forests, and in the growing of forest tree seedlings for planting on state and private lands. The session of 1927 increased the forest levy to one mill, providing an annual amount of approximately $60,000 for the purposes set forth in the original bill.

All income from the state forest is turned into a revolving fund, to be used for maintenance and acquisition.

The state forest is open to the public, and a winding gravel road extends from the state road on the east, along the boundary of the park to the western boundary of the forest. No concessions are permitted in the forest. Land along the main forest road was cleared of brush and accommodations were provided for picnic use. During the season of 1927 the tourist attendance surpassed that of previous years.

The department plans, through funds allocated to forestry, to add five or six thousand acres of state-owned forest per year.

The state cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $1,700 for forest fire protection and $2,000 for the distribution of forest planting stock.

Game

The movement for the protection of game was the first step toward conservation in Indiana. In 1881 the office of commissioner of fisheries was established, followed, in 1899, by an extension of its jurisdiction to game, birds, and fur-bearing animals. When the Department of Conservation was created in 1919 the commission was placed under it. The act creating the division of the department gave it authority not only to protect the game of the state but to acquire lands for its proper propagation and to establish game protective associations throughout the state.

The division is self-supporting. Funds are received through the sale of hunting and fishing licenses, which brought in during 1927 more than $272,000, a marked increase over $95,000 in 1919.

Licenses to hunt and fish are issued by county clerks in all counties except Marion County, where they are handled by the office of the division.

Funds collected for licenses may be used for fish and game projects and two game preserves have already been purchased, aggregating 13,000 acres. These preserves have greatly increased the wild life of the state.

An interesting phase of the work is the illustrated lectures which are given to school children on birds and conservation. This work is carried on in cooperation with the National Association of Audubon societies through a field worker, who endeavors to assist in educating the younger generation regarding the value of birds and other wild life and the real need for protecting them. Lectures are given before schools, sportsmen's clubs, and other organized bodies. Mr. Sidney R. Esten, of Pendleton, is at present carrying on this work.

Iowa

Little progress has been made in forestry work in the state, unquestionably due to the small area of original forested land. The state park movement has developed rapidly since its beginning. Additional state parks are created each year, and they are being developed more extensively each year for recreational use.

Iowa was probably the first state to create state parks through funds derived from hunters' licenses, thus initiating the method which is now used in Kansas and Missouri. Proceeds of the game fund were used only for a year or so, as a change in the conservation law resulted in direct appropriations being made for the creation of parks.

The game and park authorities work in cooperation, since the state parks form the game refuges of the state. Killing or trapping any wild animal, bird, or game is absolutely prohibited on these preserves. Although administered by separate divisions, this method of cooperation has brought excellent results, and both park and fish and game work are increasing in value each year.

State Parks

Since its beginning the state park movement has developed rapidly in Iowa. As far back as 1895, Dr. Thomas MacBride, in an address before the Iowa Academy of Science, urged the creation of state parks. In 1901, the Iowa Park and Forestry Association was organized at Ames, to encourage the establishment of parks, state legislation for rational forest management, and the creation of forest reserves. It later became the Iowa Conservation Association.

In 1915, largely through the influence of the Hon. Cady Chase, the legislature passed a law directing the State Highway Commis-

sion to make a survey of the lakes of the state, and recommend which should be preserved and which drained, the state retaining title to all lakes so preserved. The commission made an extensive survey and recommended that land be purchased on the shores of certain lakes.

In 1920 the Hon. Perry C. Holdoegel presented to the General Assembly a bill for the creation of a system of state parks. This bill, which was passed, created the State Board of Conservation, composed of three members appointed by the Governor. The State Board of Conservation, the Fish and Game Department, and the Executive Council were given authority to create parks from fees received by the Fish and Game Department from the sale of hunters' licenses. The curator of the Historical Department was made secretary to the board. The next assembly amended the law by eliminating the support derived from the fees of the Fish and Game Department and made a direct annual appropriation of $100,000. In 1923 a bill was passed increasing the number of members from three to five and greatly increasing their jurisdiction. These members are appointed by the Governor and serve without pay. The secretary to the executive council is also secretary to the Board of Conservation. At the 1925 session the annual appropriation was reduced to $75,000. However, the Executive Council was empowered, when necessary, to use funds from the Fish and Game Protection Fund for park purposes. The Board of Conservation consists of five members who serve without salary. The board, with the written consent of the Executive Council, is authorized to establish state parks in any county of the state. The Executive Council has power to purchase, condemn, or accept gifts of land for this purpose. The State Board of Conservation has authority, under the direction of the council, to erect dams across streams and the outlets of lakes for the purpose of raising the water level. The Board of Conservation and the Executive Council, acting jointly, have complete control over the management of state park areas.

The state parks of Iowa are created for three purposes: scientific historical, and recreational. These parks are of varied beauty and conserve many types of wild life. There are natural caves, narrow limestone gorges with rare flowers and ferns, characteristic flora, the loess formations in the Missouri Valley, old Indian mounds, limestone cliffs on Cedar River, and original prairie and glacial lakes. Parks representative of the typical prairie of the Iowan drift sheet will be established, while areas have already been set aside along various streams in which typical alluvial bottom trees, such as the elm and sycamore, are preserved.

The meander lakes of the state are under the jurisdiction of the State Board of Conservation. They contain an area of over 53,000 acres. Tracts of land which border these lakes, as well as the islands in the lakes, are included in this acreage. They are of two types: The glacial lakes, like Okoboji, and lakes which are cut-offs from the main channel of such rivers as the Missouri and the Mississippi. The American lotus is found in these lakes which are of the ox-bow type. Another type lake, mostly old sloughs, generally straight and sometimes quite long, are found along the Mississippi. On the semi-island-like land areas between these lakes are found the cardinal flower and greater lobelia, as well as trees such as the sandbar willow, swamp white oak, the pecan and pin oak. These lakes contain interesting aquatic life, such as the red water shield, the spatterdock, and the white water lily.

The park system contains 39 parks with an area of 7,413 acres. They have been acquired by direct legislative appropriation and through gifts of land and money. Bond issues are not approved, and condemnation has rarely been used and then with unsatisfactory results. There is no charge for admission in the state parks. Camping areas are designated only in the larger parks. No special provisions have been made for group camps or individual campers. However, Boy Scouts and Camp Fire Girls use many of the parks for camping. The Board of Conservation has adopted a policy against the owning of lodges or buildings by a group within any state park. Permission from the Board member in charge of the park is required before an individual or a group of individuals can use camping space in the parks. The facilities available include comfort stations, lodges, shelter houses and bath houses but no hotels have been erected. Concessions are granted both on a flat rate basis and on a percentage of their income and the revenue goes to the park fund. All income from the state parks is reserved for park purposes.

The parks are all accessible, since the Highway Commission is required by law to build roads to and within them. Trails are located under a plan developed by the landscape architect of the Board.

For purposes of administration the state parks are separated into divisions and each member of the Board is responsible for a division. This division is not a geographical one but is based rather on the knowledge the member of the Board has of the particular locality. Committees have often been formed in these sections to aid the Board of Conservation. Local communities have been generous in aiding in the development of park sites, and have often

matched the state's appropriation for purchase. Labor and material have been donated to aid in the development of park sites.

The members of the Executive Council are Hon. John Hammill, Governor; Ed. Smith, Secretary of State; J. W. Long, Auditor of State; R. E. Johnson, Treasurer of State; M. G. Thornburg, Secretary of Agriculture. The Board of Conservation now consists of W. E. G. Saunders, of Emmetsburg, chairman; Mrs. E. F. Armstrong, Fort Dodge; Mrs. Henry Frankel, Des Moines; J. G. Wyth, Cedar Falls, and Byron W. Newberry, Strawberry Point. W. C. Merckens is secretary of the Board, with headquarters in the State Capitol Building at Des Moines.

State Forests

With a total land area of over 35,000,000 acres, there are only 2,500,000 acres of forest land in Iowa. This is probably responsible for the lack of forest laws.

The first law relating to forestry was passed in 1906, and provided that lands devoted to growing forest trees or fruit trees, with at least 200 trees to an acre, could be classified as forest reservations. When a forest or fruit tree reservation is established, it is entitled to a tax exemption. They must be permanent, and not more than one-fifth of the total number of trees may be removed during one year. No live stock is permitted on such an area. It is the duty of each county auditor to keep an account of the forest and fruit tree reservations within his county.

In 1924 the Secretary of Agriculture was made State Forestry Commissioner. No state forests have been created, nor does the state cooperate with the Federal Government under the Clarke-McNary Act in forest fire protection. It does receive, under this act, $2,000 for the distribution of forest planting stock and $1,860 for farm forestry extension. Mark G. Thornburg is State Forestry Commissioner, as well as the Secretary of Agriculture. His headquarters are in the State House at Des Moines.

Game

The game of Iowa is a valuable asset to the state. The importance of preserving outdoor life was realized in 1897 when the office of State Fish and Game Warden was established. The game warden is charged with the enforcement of the game laws of the state, with restocking the natural covers with game and fish, and has authority to establish fish hatcheries, game refuges, and game farms. He is assisted by three assistant game wardens and forty deputies. The assistant and deputy game wardens may arrest, without warrant, any violators of the game laws.

The department is self-supporting. Its expenses are met from the game protection fund, which is made up of license fees, penalties, forfeitures, and all moneys realized from any fish, game animals, or other property confiscated and sold under the provisions of the game laws.

Educational work is one of the most important of the department's activities. Lectures are delivered in the public schools and before clubs and associations. A special feature is the annual exhibit at the State Fair at Des Moines. Specimens of game and ornamental birds are shown. Deer, fox, raccoon, mink, skunk, and opossum are exhibited, and aquariums have been built to display Iowa's native fish, all housed under a large new exhibition building. Illustrated talks are given on wild life and general out-of-door conditions.

There are a number of sportmen's organizations throughout Iowa. These clubs cooperate extensively with the state, bringing about a better understanding of the value of game laws.

Private preserves may be established to raise and sell game birds or animals, upon application for a license to the State Game Warden. An annual fee of $2 is charged for a breeder's license, which permits the owner to breed and raise and to kill or sell game birds or animals on such preserves.

The warden has the right to declare the state parks of Iowa game refuges or sanctuaries. Any other property of the state which he considers suitable may also be utilized for this purpose. Three lakes—Round Lake in Clay County, Virgin Lake in Palo Alto County, and Little Gar Lake in Dickinson County—have been made permanent sanctuaries, and no game birds or animals can be killed. These areas have been improved by food plantings. The Backbone, Keosauqua, and Dolliver state parks contain the most refuges established on park areas.[1] On these areas wild turkeys are distributed with very good results. English ringneck pheasants are very plentiful in the state. Several hundred deer are at large and are rapidly increasing.

W. E. Albert is State Game Warden and can be reached at Des Moines, Iowa.

Kansas

Kansas, almost the geographical center of the United States, with its hills, valleys and canyons, has a varied topography which offers opportunities for the development of recreational areas. Though the western section is mostly prairie, the eastern half contains a

[1] The game refuges which have been established on state parks are indicated on the table describing state parks, in the appendix.

heavy forest cover, with much hardwood and black walnut. Recreational grounds providing water sports will be of the greatest value to the state and will be provided through plans of the State Fish and Game Commission. Game work is progressing steadily. Park work has begun and is closely interlocked with the efforts to restock the state with game. A forestry department has been established and though no state-owned forests have come into existence such will probably be a development before many years.

Parks and Game

In this state the interests of two activities—park and game—are closely interwoven. Their development goes hand in hand. The creation of parks is more or less an outgrowth of interest in game work, and they are administered by the same commission.

Game work began first, with the establishment in 1905 of the office of the Fish and Game Warden. Park work had its beginning in 1909, when the Women's Relief Corps donated to the state an area of 20 acres at Osawatome—the John Brown Memorial Park. This was followed by the gift of the Pawnee Rock Park and the Fort Hays Park, all falling within the State Monument classification.

Little real progress was made until 1925, when the legislature passed an act establishing the Forestry, Fish and Game Commission, composed of five members—the Governor, the Fish and Game Warden, and three commissioners appointed by the Governor. Authority formerly conferred on the Fish and Game Warden was vested in this commission. It was also authorized to "establish, maintain and improve recreational grounds for the purpose of affording recreational facilities to the citizens of Kansas." The commission also has authority to acquire or accept the gift of necessary land, water and water rights for public forestry purposes, for the establishment of fish and game preserves, and for the provision of reservoirs or lakes and dams for impounding water on such forestry, fish and game preserves. It may plant trees on such preserves, supervise building and construction work, and generally improve the preserves. Should condemnation proceedings be necessary land may be acquired through the exercise of the right of eminent domain.

Game work is financed entirely from fees. The costs and expenses of acquiring lands, waters, carrying on game work, and the other purposes provided for in the act are defrayed out of the Forestry, Fish and Game Commission Fund. This fund is made up of 90 per cent of the moneys received from licenses to hunt, fish, trap or kill wild game, game birds, fish and fur-bearing animals. Ten per cent of the income goes into the general revenue fund of the state.

For a quarter of a century hunters have paid nearly all the expenses of maintaining this department. A fishing license is now necessary, and with the adoption of this plan the revenue of the commission will undoubtedly greatly increase. During 1927, $269,219 was expended for park, game and fish work—this is approximately the amount of the annual fees.

The members of the Fish and Game Commission are Governor Paulen, Chairman; George A. Clark, Topeka; Giles R. Atherton, El Dorado; and Lee Larrabee, Liberal. J. B. Doze, is secretary and State Fish and Game Warden, with headquarters at Pratt.

Parks

The great need in Kansas is for water recreation. Recognizing this fact, the commission has adopted the slogan "Build a Lake; Plant a Bush; Grow a Tree."

Kansas has few natural lakes, and this fact has brought about the program for the making of artificial bodies of water. Public preserves and recreational grounds will be established wherever there is an opportunity and where conditions permit. Dams will be built so that lakes of as large size as possible will be brought into existence.

Many ponds and lakes have been constructed in Kansas through private enterprise. The sportsmen of Dickinson County, for example, have constructed artificial ponds for fishing and hunting. Fish are planted in many of the ponds. Practically all of the large railroads of Kansas are building lakes to impound water, and these lakes are stocked with fish and used for recreational purposes. One organization of sportsmen was responsible for the building of many such ponds in one year.

When the recreational policy of the commission was announced the reaction of the people of the state was immediate. Two areas were donated. Three were purchased—one after having been condemned. They were called state parks. From every section of the state suggestions were received for the acquisition of lake sites. Within several months over two hundred suggestions had been made for such parks. The commission toured the state several times investigating the possibilities of these projects and employed an engineer to make tests and for construction work.

The parks will be developed for camping, fishing, bathing, and boating. Motor boats will be used on the lakes, probably under concession. The program of impounding water will be extended until every available spot in the state is exhausted. Considerations involved in the selection of sites for state parks are the water supply, the area of the lake that can be constructed, the cost of the land, and its accessibility. Since the parks are built and financed by the

sportsmen of Kansas, the main objective of the commission is to increase the fishing and hunting opportunities in the state.

The preserves acquired are interesting areas and will afford excellent opportunities for recreation when development is completed. One site, that in Neosho County, already has about 95 acres under water. Trees grow readily on the land adjoining this lake. Several lakes will be built on the Meade County area, and a lake covering 130 acres will be constructed in the Ottawa County park.

Two large projects related to flood control are being considered, with the possibility of endeavoring to invoke Federal aid. They are in Cheyenne Bottoms in Barton County north of Great Bend and in Salt Bottoms in Stafford County. The commission believes it would be possible to divert the flood waters of the Arkansas River from above Great Bend into the Cheyenne Bottoms, creating a notable lake of large area. The Salt Bottoms could be filled with water in the same way. Since much of the land is farmed, it would make the cost prohibitive for the state, but the commission hopes the projects may receive Federal support as part of flood regulation plans for the Mississippi drainage, of which the Arkansas River is a part.

The establishment of recreation grounds will bring many benefits to the state—undoubtedly among them a greatly increased number of visitors. The properties will be developed with the idea of bringing back the Kansas of earlier days.

Game

Game work began early in Kansas and has been progressing steadily, particularly during the past few years. Extensive powers, in addition to those already described, were granted the commission by the last legislature. Open and closed seasons on game, game birds, and other birds may now be established; the buying and selling of pelts and fur-bearing animals may be regulated; and license fees may be fixed within specific limits for dealing with furs and live animals. Sanctuaries may be established and maintained and the size area established is unlimited. Authority is also given to conduct research investigations.

Game conditions in Kansas are very encouraging. The prairie chicken and the quail are increasing rapidly—quail particularly having multiplied to millions. The number of ring-necked pheasants is increasing. Geese, wild duck, and doves are plentiful. The skunk, the rabbit, the badger, the muskrat, the coon, and the coyote are very numerous. A herd of bisons was purchased a few years ago so as to make it certain Kansas will always have bison within her

borders. This herd of thirteen is kept on state land, but will probably be sent to one of the state parks when it has been sufficiently improved.

The State Game and Fish Warden has authority to employ deputy wardens and one or more county wardens in each county. These wardens have police power. When an arrest is made the sum of $10 is collected from the defendant, this sum going to the county warden making the arrest. The state wardens, however, remit this cost to the commission, and it is placed in the forestry, fish and game commission fund.

The commission has authority to designate an area as a temporary game reserve for a period of one year or less. Hunting and trapping are forbidden when the reserve is created.

Under authority granted in 1923 the Fish and Game Warden during 1925 and 1926 established game refuges in various counties of the state. These refuges are on privately owned land. The largest acreage reserved in any one refuge is 640 acres.

State Forests

A number of years ago interest in forestry developed in Kansas. The first forestry organization was created in 1887, when the position of Commissioner of Forestry was established. In 1909 the law was changed to create a division of forestry in the State Agricultural College, and the college appointed a state forester. The appropriation for forestry work is made to the Kansas State Agricultural College and the Experiment Station.

It is estimated there are between one and a half and two million acres of forest land in the state. The land area of the state is over 52,000,000 acres. The forest areas in Kansas lie in thin lines along the streams. Since the state has been settled and fires kept under control the forest area has extended very considerably up ravines and hillsides. As a result there is now more natural forest area in the state than when it was first settled. In the western section the increase has been very marked during the last quarter of a century.

The natural woodlots are, for the most part, fairly well cared for and are being improved by selective cutting and, in many cases, planting to better species. Pecan, walnut, bur oak and white oak are being used.

The penalty for leaving fires unguarded has been well enforced, and damage to woodlots by fire is rather infrequent.

Four years ago the activities of the Fish and Game Department were extended to allow the expenditure of balances from hunting and fishing licenses for areas for park, game, and fish conservation. In the past four years approximately 5,000 acres have been secured.

The areas in the western part of the State are quite large and considerable forest planting is being planned. In the years to come, Kansas will have state forests on these areas.

Kansas cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $2,000 for the distribution of forest planting stock.

Albert Dickens is State Forester. His headquarters are at the Kansas State Agricultural College at Manhattan.

Kentucky

Kentucky is actively engaged in all phases of outdoor work. Game protection effort was her earliest development along conservation lines and rapid progress was made. Forestry development began in 1906 and was followed by the creation of her state park system. The one state forest offers no recreational facilities, although this will probably follow within the next few years. In the four years following the establishment of the first State Park Commission, rapid progress has been made in the development of a park system.

Kentucky's progress has been watched throughout the country because of the national interest in the preservation of Cumberland Falls. Should this remarkably beautiful area be saved from power development, added impetus will undoubtedly be given to the state park movement.

State Parks

Park work in Kentucky began in 1924, when the general assembly created a temporary Kentucky State Park Commission. The act provided that the commission should consist of three members, of which the director of the Kentucky State Geological Survey was to be a member and the chairman. The Dean of the State Agricultural College was also made a member, with the third commissioner to be appointed by the Governor with the consent of the Senate. All members served without compensation, but were allowed necessary expenses. The commission was directed to make a survey of suitable and available state park sites, and made its report to the 1926 General Assembly.

The commission consisted of Dr. W. R. Jillson, Director of the Geological Survey; Dean Thomas Cooper, of the State Agricultural College, and Vance Prather, of Fort Thomas, secretary.

The commission found wide popular support of its work for the beginning of a state park system. A study of Kentucky revealed many park possibilities of rare scenic and historic interest. Four

areas were deeded to the state. In its report to the 1926 Assembly the commission recommended the acceptance of the deeds to these prospective parks—the Cumberland Mountain State Park in Bell County, the Blue and Gray State Park in Todd County, the Pioneer Memorial State Park in Mercer County, and the Kentucky Natural Bridge State Park in Powell County. Donations of land in the "Breaks of Sandy" in Pike County and in the Reelfoot Lake area in Fulton County were also reported, but these projects were not completed. With these four state park areas as a nucleus the commission believed the state park system in Kentucky would be well founded and that, within the following five years, each of the parks could be made self-supporting.

The commission also recommended that appropriate legislation be enacted to form a permanent State Park Commission, to employ one of the commissioners as Director of State Parks, and to provide an appropriation for the supervision and development of a state park system.

A bill was introduced in the House in January, 1926, and passed the following March, creating the commission and providing for the acceptance of the areas offered the state for park purposes.

The commission thus created consisted of the State Geologist, the Dean of the Agricultural College, and one member appointed by the Governor—the Governor to be ex-officio chairman of the commission. The commission was empowered to make rules and regulations necessary for the protection and maintenance of the parks, to receive donations and gifts for the improvement or maintenance of the parks, and to employ custodians for each of the parks. An appropriation of $53,000 was called for in the bill.

The power of eminent domain was not included in the original bill, but a special bill was introduced to the assembly in 1926, giving this authority to the State Park Commission. Bitterly opposed by the power interests, because of the effect it would have on their efforts to obtain a permit to develop Cumberland Falls, it failed of passage. A similar bill was introduced in the session beginning January, 1928, and for a time seemed to have a possibility of passage. Meeting the same strenuous opposition, it was reported unfavorably to the Senate by one of their committees after a public hearing. A minority report was made, and the bill was brought to the floor of the Senate for consideration. It was defeated by a vote of 17 to 16.

With the exception of the Cumberland Mountain State Park, Kentucky's state parks have been reasonably well developed in the two years since their creation and have been used by an increasing number of visitors. In the first year of its operation the Kentucky

Natural Bridge State Park entertained more than 33,000 visitors. A hotel has been constructed in this park and opportunity for camping, hiking, etc., has been provided both in this and the other parks. With an admission charge of 10 cents and the receipts from the concessions, the parks are already bringing in a revenue. The parks are game preserves and will aid in restoring the wild life of Kentucky.

In addition to its state parks, Kentucky owns one shrine, "My Old Kentucky Home," at Bardstown. This shrine is administered by a separate commission.

The members of the 1928-1930 commission are Governor Flem Sampson; Dean Thomas P. Cooper, of the Agricultural College; W. R. Jillson, State Geologist, and Mrs. James Darnell. Mrs. Darnell is secretary of the commission and can be reached at Frankfort.

Cumberland Falls

One of the most beautiful waterfalls in the country, Cumberland Falls, in Whitley County, is the subject of keen controversy. The Kentucky State Park Commission, since its creation, has been actively working for the preservation of this scenic wonder as a state park. On the other hand, the Cumberland Hyrdo-Electric Power Company is endeavoring to secure a permit for its power development.

For several years this company held an option on 200 acres surrounding the Falls and a preliminary permit was granted it by the Federal Power Commission for a study of the possibilities of the Falls for utilization. At that time the state had no official body to administer a park, should it be created, and no funds available for its purchase. Immediately upon its creation the State Park Commission urged the preservation of the Falls and secured the support of conservationists throughout the country. The *Louisville Times* has also taken an active part in this effort.

In 1926 three officers of the National Conference on State Parks visited the Falls, and since that time the conference has taken an active part in the attempt to preserve it. As an alternative the conference proposed that a permit be granted at Wolf Creek, in Russell County—this development to take the place of the proposed use of Cumberland Falls. This Wolf Creek project would produce 133,000 horsepower and it is said would permit the storage of water sufficient to enable an adequate regulation of the Cumberland River below that point. Early in 1928 the Army Engineers are said to have reported to the Federal Power Commission that the Wolf Creek

project is too expensive and that there is not sufficient demand for the amount of power it would furnish to justify its development.

The study of the Cumberland Falls site authorized by the preliminary permit has been completed, and the power company has requested the issuance of a final permit. The Federal Power Commission has promised a public hearing before reaching a decision.

Late in 1927 it was hoped the Falls would be saved, due to the public-spirited offer of a former Kentuckian, Senator T. Coleman du Pont, to purchase the area and donate it to the state. Senator du Pont would buy 2,200 acres. The power interests were requested to cooperate with the state, drop their plans for the utilization of the Falls, and permit Kentucky to accept the offer of this proposed state park. They refused, however, and exercised their option on the last day of its duration, October 15, 1927.

At the suggestion of the National Conference on State Parks an organization of the advocates of the park was effected at Barbourville in February, 1928, with the object of defeating the effort to obtain a final permit. This organization is called the Cumberland Falls Preservation Association and is doing a very active and splendid work in securing the cooperation of the people of the state.

Cumberland Falls, if preserved for park uses, will constitute one of the most scenic state parks in the country. It is situated in a surpassingly beautiful mountain gorge, with precipitous sides arising to the top of the Cumberland Plateau. The entire gorge area is wooded, practically virgin timber. Unquestionably the Falls as a park would be of great economic value to the state.

Proposed Parks

Establishment of a western Kentucky State Park, near Columbus, Hickman County, taking in the Iron Banks, Columbus Bluff, and the old Confederate trenches, has been urged by Marion Rust, of Columbus. These trenches are in a remarkable state of preservation. They were made by the Confederate troops and were later occupied by Northern or Federal troops after the capture, during the Civil War, of Forts Henry and Donaldson, on the Cumberland and Tennessee rivers. A bill accepting this area for state park purposes passed the 1928 session of the Kentucky Legislature. It provided for the acceptance of some 110 acres and $20,000 by the state and carried an appropriation of $5,000. The land must be purchased and the $20,000 to be given to the state must be raised by popular subscription. The appropriation will be available when the conditions of the act are met. The park commemorates the Battle of Belmont and will be known as the Columbus-Belmont

Battlefield Park. It is more in the nature of a memorial park, since the funds which will be available for development are to be used in erecting historical markers and preserving the trenches and embankments.

Other areas which have been proposed as possible state parks are the Carter Caves of Carter County; the "Breaks of Sandy," in Pike County; "In Between the Rivers," in Lyon and Trigg counties; the Ohio River Lowlands, in Ballard County; the Reelfoot Lake region, in Fulton County; the proposed Audubon State Park, in Henderson County; and a State Park just south of the Lincoln Shrine, in Larue County.

State Forests

Forestry work began in 1906, but the Department of Forestry carried on its work under a State Forester only from 1912. In 1920 the department was abolished, to be recreated in 1924. The State Forester is appointed by the Commissioner of Agriculture, Labor and Statistics.

For a number of years Kentucky has considered a law authorizing the establishment of forest reserves. In 1926 a bill passed the legislature under which any owner of forest lands could list his lands as a forest reserve. Such reserves, however, were required to contain 1,000 or more acres of land not used for agriculture, mineral or other industrial purposes and to be capable of producing a thrifty forest growth within a reasonable time. A special tax rate was authorized as long as the lands remained under the forest reserve classification, receipts from the taxes to be placed in the state treasury to the credit of the forest reserve fund. The act was signed by the Governor but was declared unconstitutional by the Attorney General "on the ground that the constitution prescribes that all lands shall be assessed at their true sale value, while the act set $2.50 as the maximum." Another bill for the same purpose but containing entirely different provision was introduced in the 1928 Legislature. It passed the Senate but not the House. As a result there is, at the present time, no law in regard to the establishment of forest reserves.

Six tracts of land, in close proximity and aggregating 3,624 acres, were donated to the state by the Kentenia Catron Corporation in 1919, Kentucky's only state forest. The area has been mostly cut over and burned over, but the stand of young growth is of very good quality. The Kentucky Forest Service is reforesting the area and it is expected to become valuable for timber growing. Kentucky has established a forest fire protective system over the forest

and this year will erect a 60-foot fire observation tower with telephone connection, which will aid in the fire protection work a great deal.

Kentucky cooperates with the Federal Government under the Clarke-McNary Act, and received during 1928 $14,109 for fire protection and $2,000 for the distribution of forest planting stock.

Kentucky's forest area has been greatly reduced. With an original area of 24,320,000 acres there now remain only 8,900,000 acres of forested land. There are no national forests within the state.

W. E. Jackson, Jr., is State Forester. His address is Department of Agriculture, New Capitol, Frankfort.

Game

The first conservationist in the state interested in the protection and propagation of wild life was the famous Kentuckian, Daniel Boone. In May, 1775, he submitted to the first legislative body of the state, assembled at Boonesboro, a bill for the protection of game. The bill passed. The next conservation effort was in 1876 and related to the protection and propagation of food fishes. A commission was created in that year and an appropriation of $3,000 was made to carry on the work. In 1912 the present Kentucky Game and Fish Commission was created. It was given power to propagate, protect, and conserve wild life; to create a warden force for protection, and to construct and maintain fish hatcheries and game refuges. In 1926 the commission was given control of the mussel shell beds in the Ohio River and other Kentucky streams. The commission consists of four members, who serve without compensation, except necessary expenses. No two members of the commission may be residents of one county, nor shall more than two members belong to the same political party. An executive agent is appointed by the Governor.

The expenses of the commission are met from the Game and Fish Protection Fund, composed of all moneys received in payment of hunting and fishing licenses, fines, contraband, penalties and forfeitures arising from the fish and game law of the state.

The warden force of the state was recently reorganized. It is in direct charge of a superintendent of wardens. The state has been divided into twelve districts of ten counties each and into three zones of forty counties each. Each division is in charge of a salaried warden. In each county two or more volunteer wardens may be commissioned by the superintendent of wardens. In addition to their police service, the wardens aid the commission in its program

of education and endeavor to promote a spirit of cooperation resulting in the public assisting in the protection of wild life.

Every effort is made to bring to the attention of the people of the state the necessity for the protection of the wild life of the state. A modern steel railway car for the distribution of game and fish was purchased at a cost of $75,000. It is also used for educational purposes. Films have been made to drive home lessons on conservation and are shown in schoolrooms and on the lecture platform. The radio is also used by the commission. Literature is published and distributed very generally. Many articles published in the newspapers are widely read by the rural folk and form an important part of the educational program.

Alarmed at the rapid destruction of the wild life of Kentucky, a group of the leading progressive men of the state met at Frankfort in 1926 and organized the Kentucky Game and Fish Protective Association. The purpose of the organization is to advance the protection and propagation of fish and game; to assist in the enforcement of fish and game laws; to prevent destruction of property by hunters and fishermen; to bring about more friendly relations between sportsmen and landowners; and to aid in the education of the general public in more sportsmanlike methods of taking fish and game. This association has now increased to eighty cooperative county organizations scattered throughout the state.

The commission has authority to acquire lands or water for reserves by either purchase, lease, or donation, and also has authority to condemn land or water for such purposes in the same manner as is provided by law in the condemnation of land for railroad purposes. The cost of such land or water is paid out of the fish and game protection fund. Fifty per cent of this fund may be appropriated annually for establishing, erecting, conducting, and maintaining fish hatcheries and game preserves, and paying for the land, improvements, and waters acquired. This is an increase of 40 per cent authorized by the 1925 Legislature and will probably result in the purchase of state-owned preserves.

Many lakes, ponds, refuges, and breeding preserves have been created for the protection and propagation of wild life. These preserves, however, are on lands under lease, giving the commission supervision over the game alone.[1] The commission plans to purchase refuges and maintain full control over the land.

The Commission is composed of J. B. Gatliff, Williamsburg, Chairman; Alanson Trigg, Glasgow; T. B. Watts, Louisville, and Ray B. Moss, Pineville. John L. Trumbo is the Executive Agent, with office in Frankfort.

[1] A list of the preserves was not available.

Louisiana

The protection and conservation of the natural resources of the state are under the direct administration of the Department of Conservation, in which are centered state park, forest, and game work. Game work is in charge of the Division of Wild Life, with both state park and forest work under the Division of Forestry.

The original agency was a board of commissioners for the protection of birds, game, and fish, established in July, 1908. In 1912, through a reorganization, the Conservation Commission was creacted. This commission was superseded by the present department in 1916. The department is directed and controlled by a commissioner, appointed by the Governor with the advice and consent of the State Senate.

The Commissioner of Conservation is V. K. Irion. W. R. Hine is Director of the Division of Forestry; Stanley C. Arthur, Director of the Division of Wild Life; Percy Viosia, Jr., Director of the Division of Fisheries, and Wilson S. Holland, Director of the Division of Enforcement. The office of the commission is in New Orleans.

State Parks

There are lands throughout Louisiana of historic interest and rare beauty which should be preserved as state parks. To bring about the creation of a system of such parks the Louisiana State Park Association was organized in 1922. While the efforts of the organization received many setbacks, it continued its work and in 1927 aided in securing the passage of legislation providing for the acceptance of lands for state parks. The association was organized chiefly through the effort of Dr. William Scheppegrell, of New Orleans. He has been president since the association was organized in 1922. Harold J. Neale, of New Orleans, is secretary.

In 1924 the association was instrumental in securing the introduction in the legislature of a bill providing for the creation of a State Park Commission, with authority to accept lands for state park purposes. The bill passed the Senate unanimously, but failed to come to a vote in the House.

In 1926 a bill for the creation of a State Park Division in the Department of Conservation was again introduced in the legislature. It provided that the division should be under the direction of the commissioner of the department and under the control of an advisory board consisting of the commissioner and one representative from each congressional district of the state, to be appointed by the Governor. A general manager of parks would be appointed by the

Board. The Governor was authorized to accept gifts of land to the state, to be administered by the department. The Advisory Board might also purchase lands and designate their use. This bill passed the House and was carried to the Senate, but was not reported out of committee.

Provision for the establishment of state parks was made by the 1926 Legislature through an amendment to the act of 1922, which created a Division of Forestry. One member was added to the Forestry Governing Board, who would represent state parks and who would be selected from the membership of the Louisiana State Parks Association. The Forestry Division was empowered to purchase state forests and state parks from any money saved from its appropriations and to administer any areas selected. Following the passage of this bill, another bill was offered immediately by the Division of Forestry calling for an appropriation of $50,000 to be used in the purchase of state forests and state parks, but this bill was unfavorably reported by the House Appropriations Committee and was withdrawn.

An historical park has been established in Louisiana through the gift of former Chief Justice of the Supreme Court of Louisiana, Joseph A. Breaux. The park has an area of approximately 150 acres and is on Bayou Teche, 100 miles north of New Orleans, the place where Evangeline met Gabriel. Through the interest and effort of the Longfellow Memorial and State Park Association, of which Mrs. A. A. Anding, of Opelousas, is president, the legislature accepted the gift. Mrs. Anding is raising funds for the improvement of the land.

No state parks have been created, due primarily to the lack of funds for their purchase. A number of areas have been suggested, among them the Bynum Woods, about 20 miles from Alexandria, which is said to contain the finest remaining stand of original hardwood timber in the state. Congressman Aswell introduced a bill in Congress for the purchase of the land for a national park, but the bill was not reported out of committee. The proposed park contains red gum, sycamore, cottonwood, and splendid oaks.

The National Conference on State Parks brought to the attention of the Division of Forestry opportunities for securing public lands for park purposes. There are something over 10,000 acres of public land in the state which may be obtained from the Federal Government for $1.25 an acre. A survey of this land showed that it is not of state park caliber, and that it would be difficult to administer.

With the completion of Louisiana's highway system, the development of state parks is of increasing importance. A number of large parks, representative of the best of the state's scenic spots,

would attract many visitors. A survey of the state by Miss Caroline Dorman, of the Conservation Commission, revealed interesting possibilities for parks, such as Ferry Lake in Caddo Parish; an area on the Tangipahoa River; Lake Arthur in the southwestern part of the state, and along Bayou Teche where gigantic live oaks draped in Spanish moss are found. Interest has developed in the establishment of a large state park in the Kisatchie Wold, a range of high hills northwest of Alexandria—an area accessible from every part of the state. In this rugged and beautiful country there are forests of virgin longleaf pine, many hardwood trees along the streams, outcroppings of rock, fine springs, and numerous species of wild flowers. Excellent highways make the proposed park accessible.

State Forests

Forestry in Louisiana has made rapid progress since the passage of the first law in 1904. At that time there was not sufficient interest to secure an appropriation to carry on the work. Further legislation in 1910 was equally futile, since again no appropriation was made. It was not until 1918 that an appropriation of $12,000 a year was secured, and at that time the General Forestry Governing Board, the Division of Forestry of the Department of Conservation, and the office of the Superintendent of Forestry were authorized but were not established. In 1920 an appropriation of $60,000 was secured and each succeeding legislature has allotted this sum. Of this, $51,000 is allotted to forest protection work. The entire appropriation for forestry work is derived from the severance tax on timber, and is, therefore, paid by the lumber industry in the state.

In 1922 the legislature passed an act known as the General Forest Conservation Laws, amending the acts of 1918 and 1920. This act carried into effect the previous provision for the creation of the Division of Forestry of the Department of Conservation and the General Forestry Governing Board. The Board meets quarterly and is charged with the development and approval of plans and policies in connection with reforestation. All expenditures of the Division of Forestry must be approved by the Board. The members receive no compensation and are reimbursed only for actual traveling expenses. The Board consists of Commissioner of Conservation, V. K. Irion, ex-officio, Chairman; Major J. G. Lee, Louisiana State University; Q. T. Hardtner, Urania; Col. W. H. Sullivan, Bogalusa, and B. F. Smith, Elizabeth.

In 1926 the Division of Forestry was given charge of state park work and was authorized to purchase and accept land for park pur-

poses. A member to represent state parks was added to the Forestry Governing Board. Mrs. A. A. Anding, of Opelousas, was delegated to this position.

Forestry work in Louisiana was not begun too early. The first settlers found the state covered with an almost unbroken forest of cypress, pine, and hardwoods. The original virgin forest was approximately 23,000,000 acres. The present virgin forest is about 2,500,000 acres. There are now 16,000,000 acres of forest land, which is being depleted rapidly.

To aid in solving the forest problem, many private owners are growing timber on lands unsuited to agriculture. The state cooperates with these landowners and approximately 4,000,000 acres are under intensive protection. Fire patrolmen have been jointly employed, and the landowners furnish additional men when they are needed to fight fires. Several schools throughout the state are also setting aside or receiving donations of land to be used for the growing of timber. Forest owners who desire to contract their lands for reforestation purposes may obtain a fixed assessment on their lands at the cash value of the bare land. This value remains on the assessment rolls as long as the contract is in effect. The contract may run for from 15 to 40 years.

Louisiana was one of the first states to provide for the teaching of forestry in the schools. Many talks are given at schools each year by agents of the division, and essay contests are conducted. Motion pictures are used in the educational program of the state. A news service is maintained. A summer forest camp is conducted at Bogalusa by the State University, where excellent facilities are offered for the study of reforestation. The Great Southern Lumber Company donated a tract of 1,000 acres to the university for use in carrying on experimental work.

The protection of Louisiana's forest land from fire is the most important task of the division. It cooperates with the Federal Government, and during 1928 will receive $32,607 for fire protection and $2,000 for the distribution of forest planting stock.

Louisiana has one state forest of 5,870 acres in Rapides Parish, near Woodworth. Excellent highways lead to the forest, which contains pine and hardwood timber and beautiful streams. It will be developed for camping. Roads are under construction. Recreation will be encouraged to the fullest degree compatible with its administration for forestry purposes. The land was purchased from funds in the regular forestry appropriation. The division plans to purchase at least five more forests of from 2,000 to 3,000 acres each, using surplus funds for this purpose. These forests will be

used for demonstration purposes, for recreation, and as game preserves.

Game

The protection of game and fur animals is under the administration of the Division of Wild Life of the Department of Conservation, formed in November, 1924. Previously this work was administered by the Division of Game. The amalgamation of the division of game and fur into one distinct unit was caused by the rapid depletion of the wild life and the immediate necessity for a survey and for research activities.

All conservation laws are enforced by a separate division, the Division of Enforcement, created in 1924 to take charge of the conservation agents. To adequately police the state, it is divided into seven districts with a supervisor in charge of each. Under the supervisors are conservation agents and boatmen. Confiscated game and fish are given to charitable institutions throughout the state. Proceeds from fur and trap sales have in most instances been turned over to school authorities.

The field studies and surveys conducted by the Division of Wild Life have been very valuable. Through legislative enactment, with the consent of the commission, parishes are allowed to have special closed seasons for a period of not to exceed three consecutive years to permit the game to increase. Many parishes have been granted these special closed seasons.

Louisiana ranks first among the fur-producing states. Among the fur-bearing animals found here are muskrats, opossums, raccoons, minks, skunks, otters, wolves, foxes, weasels, and beavers. The great demand on this supply makes the conservation of fur-bearers one of the important problems of the division. Many landowners who have contracted to make their holdings reforestation projects are making them wild life sanctuaries as well.

The game preserve system began in 1912 when Charles Willis Ward and his associates donated 13,000 acres in Vermilion Parish to the state. This is now known as the State Wild Life Refuge. In 1920 Mrs. Russell Sage gave Marsh Island, in Iberia Parish, for the same purpose. This preserve contains 79,000 acres. A gift of 86,000 acres in Cameron and Vermilion parishes by the Rockefeller Foundation was made in the same year. In 1924 the Rainey Preserve was created, the land being given by Mrs. Grace Rainey Rogers as a memorial to her brother, Paul Rainey. The latter preserve is under the jurisdiction and maintenance of the National Association of Audubon Societies. Among the game on refuge on these preserves are fur-bearing animals, geese, ducks, snipe, shore-

birds, rails, coots, and numerous non-game water birds. The great saving of wild life on these tracts is the most important factor in the game conservation program of the state.

Because of the large amount of land taken up by private shooting clubs, the legislature set aside 23,000 acres as a public shooting ground. It is located on the Pass a la Loutre, one of the mouths of the Mississippi River, and is reached from Buras by boat. Upon payment of a hunting license fee, anyone, resident or non-resident, may enjoy the sport. A large, comfortable clubhouse has been built, where guests are charged $9.50 per day for board, lodging, boat, decoys, and guide. This public shooting ground renders a public service of unusual character.

Maine

With her 15,000,000 acres of forest land, her thousands of lakes and hills, her islands and streams, Maine has one of the finest opportunities of any state for the development of state park and forest systems.

Many privately owned forested areas throughout the entire state are used for public recreation. This use is probably the prime reason for the lack of interest among the people in the establishment of state parks and forests. However, such use is only possible at the pleasure of the owner, and areas where the public has unquestioned rights should be established.

Game work began as far back as 1878. It is progressing steadily and successfully. Under the present administration, many opportunities exist for hunting, and this development affords an opportunity for outdoor pleasures.

State Parks

From time to time interest in the creation of a state park system develops, but as yet no areas have been set aside. The state was given authority to accept gifts of land under an act passed in 1919, providing for the establishment of a state park and forest system to be administered by the State Land Agent and the Forest Commissioner. Under the act, revenues from the areas established would be applied to the administration and improvement of the lands, or could be utilized for the acquisition of additional areas.

In 1923 a law was passed giving the State Land Agent full charge of prospective state forests, including all state-owned lands covered with trees, and authorizing him to recommend the purchase of tracts for the preservation of forests, reforestation of barren lands, and the protection of the water supply. No purchases have been

made under authority of this act. However, these laws offer an opportunity for park and forest development, if the demand for their creation becomes sufficiently strong.

Probably one explanation of the failure to take advantage of the park and forest law is that public use of the wild lands for fishing, hunting, and camping is permitted. Private development is already active and is taking up many of these areas, thus excluding the public.

At one time the state owned 11,000,000 acres of fine timber land. These lands were sold for a few cents an acre, an example, among other things, of lack of foresight of the recreational needs of the state. Maine now has only a little over 330,000 acres in what are known as "Public Lots." Governor Brewster has been interested for several years in assembling large tracts for state parks and forests through the exchange of some of these public lots for private lands. In this way he believes it will be possible to assemble into larger tracts areas which warrant development and protection as state parks and forests.

The state owns a number of historical parks, some of which have recreational use. These areas were purchased in 1922 from the United States Government, and consist of surplus forts and other military areas.

For many years there have been bills before Congress for the establishment of the Mount Katahdin National Park. They have always failed of passage. In 1919 Governor Baxter introduced into the state legislature an act establishing a state park in the Katahdin region. He believed the purchase of this area would be a profitable investment and that a large indirect income would be obtained from tourist travel which would be attracted to the area, should it be made a state park. The 1919 bill and another bill introduced in the succeeding legislature in 1921 were defeated by the opposition of timber owners. Governor Brewster also believes that Mount Katahdin should be preserved because of its great scenic value. The value of the timber lands is increasing constantly and the owners are becoming more reluctant to sell. It is said that the beauty of Katahdin can not be surpassed by any mountain east of the Mississippi River. It rises to a height of 5,273 feet. Unquestionably, it would be the crowning feature of Maine's state park system.

Forests

The fine forested areas of Maine offer untold recreational opportunities. With a total area of slightly over 19,000,000 acres, the state still has a forested area of 15,000.000 acres. This forest land, however, is practically all cut over, and only about 1,000,000 acres

of virgin timber remain. The forests are divided into two distinct sections—the spruce region in the north and the white-pine region in the south.

The first step toward the preservation of these forests was taken in 1869, when a commision was appointed to recommend a forestry policy to the legislature. Organized effort did not begin until 1891, when the Maine Forest Service was established. The executive officer of the service is the forest commissioner.

For administrative purposes, Maine is divided into two districts, the Maine forest district and all lands outside of this district. The forestry district includes approximately 9,700,000 acres and covers practically all of the forest land in the eight northern counties. Forest fire protection is organized by the forest commissioner, and its expenses are met by the state through the assessment of a tax of 2½ mills on the dollar on all property within the district. A town or plantation may, by a vote of its citizens, become a part of the district. The district is divided into three subdistricts, the east comprising the counties of Hancock and Washington, the west consisting of the counties of Oxford, Franklin, Somerset, and Piscataquis, and the north comprising the counties of Penobscot and Aroostook. Supervisors have been appointed for each of these sections, who work with the chief wardens in the district to prevent forest fires. During the summer months approximately 175 men are employed steadily, and nearly 500 men are commissioned as deputies who may be called on at any time to aid in protection work.

The municipal officers of each town or plantation are responsible for the protection of the 5,000,000 acres of forest land outside of the forestry district. Selectmen are ex-officio forest wardens and have authority to appoint deputy wardens. Fires which have burned over one acre or more are reported to the forest commissioner. The state cooperates with the municipal officers in the enforcement of some of the forest laws, but can not contribute to the cost of fire fighting.

Maine has no state forests, but the forested places of the state are utilized for recreation. The Maine Forest Service, with the consent of the private landowners, maintains camp sites for the use of the public. There are also many camp owners who build summer camps in the woods around the lakes, thus taking advantage of the opportunity offered to live in the out-of-doors. This camp activity is growing rapidly and represents an investment of several million dollars in housing facilities and equipment.

No person or firm may operate a public camp or lodging place outside the boundaries of cities, towns, or plantations unless it is licensed by the public health council. Fees of not exceeding $5

may be charged for such licenses, which must be approved by the Governor.

Maine cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 received $43,640 for fire protection and $1,500 for the distribution of forest planting stock.

The current annual state appropriation is $210,000.

Neil L. Violette is Forest Commissioner of Maine. His headquarters are in the State House at Augusta.

Game

As far back as 1878 the legislature of Maine authorized the appointment of commissioners of fisheries. Jurisdiction was extended to game in 1880, followed, in 1899, by the creation of the Commissioner of Inland Fisheries and Game. It is the duty of the commisioner to supervise and enforce the inland fish and game laws. He may modify or repeal rules and regulations promulgated by him when he deems it expedient.

There has been a general awakening in the state to the importance of preserving the wild life, and the commissioner is receiving the cooperation of the citizens of every section. Fish and game associations are constantly being formed, and chambers of commerce and business men's clubs give their aid in creating a sentiment in favor of the game laws. Addresses are made before clubs and associations. As a result of this educational work more interest is shown each year in the preservation of game.

The Fish and Game Department is supported by annual appropriation. The receipts from license fees, fines, and forfeitures go to the state treasury and can not be used by the department. The commissioner recommends legislative action which will enable the department to use the total income from the registration fees of those who hunt and fish. He estimates this would bring in over $100,000 a year, and if the license fees and fines were added to this, the department would be self-supporting, and additional funds would be provided for the propagation of both fish and game.

The game laws are enforced by inland wardens appointed for a term of three years by the Governor, with the consent of the council, upon recommendation of the commissioner. These wardens enforce all laws relating to game, have police powers, and prosecute offenders. Sheriffs, deputy sheriffs, police officers, and constables are vested with the powers of inland fish and game deputy wardens, who are employed for the calendar year and serve without compensation. They have the same powers as the inland fish and game wardens.

The fish and game wardens are also appointed state fire wardens, and it is their duty to extinguish fires left burning, to give notice of fires beyond their control, and to caution all sportsmen of the danger from fires in the woods.

There are many opportunities for hunting in the state. Duck shooting is enjoyed in the interior around many of Maine's lakes. The black bear is plentiful in the deep woods. The seacoast, Merrymeeting Bay, and other feeding grounds for ducks and shore birds furnish excellent sport. A game sanctuary has been established in a section of Merrymeeting Bay, where it is unlawful at any time to shoot game or game birds, although boats may pass through the sanctuary without incurring any penalty.

Maine has a number of game preserves which are neither leased nor state-owned, but are designated by the commissioner. Hunting and trapping are prohibited on these preserves. It is unlawful for any hunters having firearms in their possession to camp within the limits of a game preserve or sanctuary. In all, approximately 250,000 acres are embraced in the game preserves and sanctuaries of the state. They are as follows:

Katahdin Park Game Preserve, Piscataquis County, 90,000 acres.
Narragansett Game Sanctuary, Gorham, Cumberland County.
Mount Bigelow Preserves, in Franklin and Somerset counties, 45,000 acres.
Goodwill Farm, Somerset County, 1,500 acres.
Augusta Game Preserve, Kennebec County, 600 acres.
Ganeston Park, Kennebec County, 475 acres.
Lincoln County Game Preserve, Lincoln County.
Bangor Game Sanctuary, Penobscot County.
Salmon Pond, Piscataquis County.
Thorncrag-Stanton Bird Sanctuary, Androscoggin County, 45 acres.
Dry Pond, in Gray, Cumberland County.
West Bath Game Preserve, Sagadahoc County.
Knox County Game Preserve, Knox County, 6,500 acres.
Rangeley Game Preserve, Franklin and Oxford counties, 63,000 acres.
Old Town Game Preserve, Penobscot County, set aside for four years from July, 1925.
York County Game Preserves—two game preserves established—one in Kennebunk and one in Kennebunk and Wales.
Kines Point, Piscataquis County, 1,500 acres.

Willis E. Parsons is Commissioner of Inland Fisheries and Game. His office is in Augusta.

Maryland

Conservation of the outdoor resources of Maryland began in 1896 with the creation of the office of State Game Warden. This was followed, in 1906, by the creation of a State Board of Forestry. Action has not yet been taken for the development of a state park system, although, under a law enacted in 1922, the state forester is authorized to direct the protection and improvement of state parks and forest reserves. The state forests are developed for recreation, and through their camping facilities offer excellent opportunities to the people of the state to enjoy life in the open. The conservation of game and the development of state forests is making rapid progress.

Forests

Forestry work had its inception in Maryland in 1906, when Messrs. John W. and Robert Garrett donated 1,800 acres of land to the state for use as a state forest on the condition that a board of forestry should be created to administer it. The land was accepted and the State Board of Forestry was created in that year. It consisted of seven members—the Governor, the Comptroller, the presidents of Johns Hopkins University and the Maryland State Agricultural College, the State Geologist, a citizen of the state interested in the advancement of forestry, and a practical lumberman engaged in the manufacture of lumber within the state. The board was given authority to appoint a state forester, who, under the general supervision of the board, would have direction of all forest interests and forest reserves within the state.

The State Board of Forestry was given authority to purchase lands suitable for forest reserves, using for this purpose moneys in the forest reserve fund. The Governor was authorized to accept gifts of land recommended by the State Board of Forestry with the stipulation that such areas be administered as state forest reserves and that gifts be absolute except for the reservation of mineral and mining rights. The board was given authority to condemn when such action was necessary for the advancement of the forestry program.

The State Board of Forestry functioned until 1923, when, under the Reorganization Act, it was placed under the University of Maryland as a State Department of Forestry. The department is re-

sponsible to the board of regents of the university, but is under the direction of an advisory board appointed by the Governor.

Fire protection has been a major activity of the department since its beginning. The present forest protection system covers the entire state although it is inadequate to fully control the problem. The administration of the forest protection system is carried on by the state forester, assisted by an assistant forester and three district foresters, stationed at various points throughout the state. Forest wardens, who now number 350, are secured by the district foresters. They receive a small rate of pay when actually engaged in suppressing fires. Conferences of the forest wardens for the discussion of the needs of forest protection, methods of fire prevention, and the like, are held annually when funds are available.

The department finds the education of the public in forestry work an important phase of its administration. Lectures are given before various organizations throughout the state. Lantern slides are available, special articles are published in newspaper and magazines, and special reports are prepared for state publications. Forestry exhibits are shown at county fairs and have been loaned to the schools for short periods.

Maryland has a total forest area of 2,228,000 acres. Only 4,032 acres are in state forests, while auxiliary forests total 1,900 acres. An excellent beginning was made when approximately 1,800 acres were donated to the state in 1906. In 1912 the legislature appropriated $58,500 for the purchase of an area on the Patapsco River above Relay and Old Fort Frederick, in Washington County. Despite this favorable beginning, the acreage of state forests has increased only slightly in the last twenty years. There are many large areas of forest land in the mountain sections, valuable for state forest development, which can be acquired for approximately $5 an acre. These lands would be a valuable asset to the state if funds could be secured for their purchase.

Practically all the forest lands of the state are privately owned, and it is therefore important that the department cooperate with the owners in the management of their forest lands. Woodlands are examined when it is requested, and a plan of management to meet conditions formulated. This plan is submitted to the owner in the form of a report, with recommendations which can be readily understood and put into practice. In addition to examinations made on the ground, information is also given to individuals on their problems of forest management, timber prices, and suitable markets.

The Forestry Department is in the nature of a clearing house between the timber owner and the timber user.

The 1927 Legislature authorized the formation of auxiliary state forests through agreement with private landowners. The forests created under this provision are adjacent to state holdings—600 acres in Barrett County and 1,300 acres in the Patapsco State Forest. Auxiliary forests are subject to the regulations which apply to the state forests. No state money may be spent on them for permanent improvements.

A tract of 60 acres in Talbot County was donated to the state early in 1928. This area, known as the Seth Demonstration Forest, was given for demonstration purposes and will not be used for recreation.

Maryland now owns six state forests in three widely separated sections. The largest and best developed is the Patapsco, just west of Baltimore. There are four forests in Garrett County, north of Lakeland, and one at Fort Frederick. The forests are available for recreational use through the development of camp grounds, trails, roads, and foot bridges. There is no charge for camping, but permits are issued for a specific time and location. The revenue which is derived from the sale of mature timber is applied to the development of the areas. There are bathing facilities, and the many small streams flowing through the forests furnish good fishing. Boating is possible in many places. Several Boy Scout troops use the Patapsco Forest Reserve for summer camps.

The 1927 Legislature of Maryland repealed a law of twenty years standing, which sanctioned the purchase of lands within the state by the Federal Government for national forests. The enabling act was passed in 1908 before a definite state forest policy had been developed. The state has gradually built up a strong forestry policy and believes it should assume the acquisition and management of all forest land. No national forests were acquired under the authority conferred in 1908.

To carry out its policy the Department of Forestry has formulated a plan to obtain from the legislature an appropriation of $1,000,000, available in annual amounts of $100,000 for ten years, for the purchase of 200,000 acres of mountain land in the western part of the state for a state forest. A maximum price of $5 to $6 an acre will be set for the land. The area desired is situated in Frederick, Washington, Allegany, and Garret counties, where there are approximately 4,000,000 acres of forest land. It is the plan to develop the growth of timber, provide a recreational center, and stock the streams with fish and the forests with game.

The state cooperates with the Federal Government, under the Clarke-McNary Act, and during 1928 will receive $6,490 for forest fire protection, $2,000 for the distribution of forest planting stock, and $1,860 for farm extension work.

The state appropriation for the current year is $49,080.

The Board of Regents of the University of Maryland is composed of Samuel Shoemaker, chairman; John E. Raine; Frank J. Goodnow; John M. Dennis, treasurer; Robert Crain; Henry Holzapfel; B. John Black; W. W. Skinner, secretary; Charles C. Gelder. The Advisory Board of Forestry consists of Frank J. Goodnow, E. B. Mathews, Robert Garrett, George L. Wood, Norman James.

The State Forester is F. W. Besley. The headquarters of the department are in the Fidelity Building of Baltimore.

Game

In 1896 sportsmen of the state insisted, because of the destruction of game in Maryland, that the General Assembly enact a law for its protection. The office of State Game Warden was established in that year. In 1904 it was reorganized. Under another reorganization in 1916, the office of the State Game Warden was made a division of the Conservation Department, created by the same law. This department took over several different bureaus and departments of the state formerly operating under separate heads.

The administrative work of the game division is under the State Game Warden. The game laws are enforced by deputy wardens. The state is receiving increasing cooperation from the public in the carrying out of these laws.

It was not until 1918 that comprehensive steps were taken for conservation of the game in the state. In that year a state-wide hunting license was authorized, with the provision that all funds so acquired be used for work in this department. This fund is used for the employment of deputies to enforce the game laws, to operate the game farm, and to purchase or lease game preserves. Preserves under lease contain 33,113 acres, and 4,157 acres have been purchased.

As a result of the conservation law, the game of the state is increasing each year. Bob-white quail and cottontail rabbits are very plentiful, while large numbers of wild turkeys, deer, and ruffed grouse are found. Swan are protected through a ten-year prohibition on their hunting and killing. This prohibition ceased in 1926, but the department extended the closed season indefinitely. The largest number of swan are found in Chesapeake Bay.

The areas which the department leases as game preserves are as follows:[1]

Allegany County				
Pool & Smith Refuge	326 acres	Lease Dec. 15, 1923	Expires	Dec. 15, 1928
Baltimore County				
Dumbarton Refuge	1,800 acres	Lease Sept. 1, 1925	Expires	Sept. 1, 1930
Lake Roland Refuge	300 acres	Lease Dec. 17, 1924	Expires	Dec. 17, 1929
Calvert County				
Briscoe Refuge	300 acres	Lease June 21, 1926	Expires	June 21, 1931
Caroline County				
Jarrell Refuge	211 acres	Lease May 26, 1926	Expires	May 26, 1931
Almshouse Refuge	200 acres	Lease May 25, 1926	Expires	May 25, 1931
Day Refuge	200 acres	Lease May 1, 1926	Expires	May 1, 1931
Towers Refuge	200 acres	Lease May 27, 1926	Expires	May 27, 1931
Carroll County				
Lehigh Portland Cement Refuge	657 acres	Lease June 2, 1927	Expires	June 2, 1932
Keefer Refuge	156 acres	Lease June 4, 1926	Expires	June 4, 1931
Conoway Refuge	250 acres	Lease May 27, 1926	Expires	May 27, 1931
Lindsay Refuge	100 acres	Lease Aug. 30, 1927	Expires	Aug. 30, 1932
Bond Refuge	300 acres	Lease May 28, 1926	Expires	May 28, 1931
Cecil County				
Drenan Refuge	400 acres	Lease May 21, 1926	Expires	May 21, 1931
Taylor Refuge	200 acres	Lease May 22, 1926	Expires	May 22, 1931
Whurry Refuge	300 acres	Lease May 21, 1926	Expires	May 21, 1931
Ott Refuge	211 acres	Lease April 29, 1926	Expires	April 29, 1931
Jones Refuge	600 acres	Lease June 16, 1926	Expires	June 16, 1931
Shark Refuge	200 acres	Lease June 24, 1926	Expires	June 24, 1931
Condon Refuge	300 acres	Lease June 30, 1926	Expires	June 30, 1931
Short Refuge	300 acres	Lease June 30, 1926	Expires	June 30, 1931
Jack Refuge	400 acres	Lease June 30, 1926	Expires	June 30, 1931
Coudon Refuge	825 acres	Lease Nov. 1, 1927	Expires	Nov. 1, 1932
Hale Refuge	200 acres	Lease Oct. 17, 1926	Expires	Oct. 17, 1931
Dorchester County				
Webster Refuge	100 acres	Lease Oct. 17, 1926	Expires	Oct. 17, 1931
Woolen Refuge	300 acres	Lease April 19, 1926	Expires	April 19, 1931
Smith Refuge	200 acres	Lease April 19, 1926	Expires	April 19, 1931
Watkins Refuge	263 acres	Lease April 27, 1926	Expires	April 27, 1931
Frederick County				
Grumbine Refuge	500 acres	Lease Mar. 19, 1928	Expires	Mar. 19, 1933
Garrett County				
Snaggy Mt. Refuge	3,000 acres	Lease Aug. 1, 1925	Expires	Aug. 1, 1930
Meadow Mt. Refuge	4,500 acres	Lease June 17, 1926	Expires	June 17, 1931
Deep Creek Refuge	200 acres	Lease Sept. 1, 1925	Expires	Sept. 1, 1930
Grantsville Game Refuge	500 acres	Lease Nov. 1, 1927	Expires	Nov. 1, 1932
Harford County				
Robbins & Sewell Refuge	212 acres	Lease Sept. 7, 1926	Expires	Sept. 7, 1931
Magness Refuge	256 acres	Lease May 1, 1926	Expires	May 1, 1931
Dorance Refuge	400 acres	Lease May 1, 1926	Expires	May 1, 1931
Osborn Refuge	1,134 acres	Lease Aug. 1, 1926	Expires	Aug. 1, 1931
Bryant Refuge	350 acres	Lease July 1, 1926	Expires	July 1, 1931
Pheasants Refuge	300 acres	Lease Sept. 1, 1926	Expires	Sept. 1, 1931
Watson Refuge	140 acres	Lease Sept. 1, 1926	Expires	Sept. 1, 1931
Howard County				
Warfield Refuge	260 acres	Lease Sept. 1, 1926	Expires	Sept. 1, 1931
Balliere Refuge	500 acres	Lease Oct. 31, 1926	Expires	Oct. 31, 1931
Kent County				
Brown Refuge	310 acres	Lease June 8, 1926	Expires	June 8, 1931

[1] State-owned preserves are described on pages 430-431.

Montgomery County			
Caulfield and other refuges	881 acres	Lease Jan. 23, 1926	Expires Jan. 23, 1931
Prince George's County			
Brady Refuge	450 acres	Lease Oct. 15, 1925	Expires Oct. 15, 1930
Malcomb Refuge	120 acres	Lease Oct. 29, 1923	Expires Oct. 29, 1928
University of Maryland Refuge	1,200 acres	Lease Oct. 30, 1925	Expires Oct. 30, 1930
Metzerott Refuge	700 acres	Lease Oct. 1, 1925	Expires Oct. 1, 1930
Washington County			
Woodmont Rod & Gun Club Refuge	800 acres	Lease April 1, 1927	Expires April 1, 1932
Wicomico County			
Hodgson & Johnson Refuge	375 acres	Lease June 1, 1926	Expires June 1, 1931
Worcester County			
Gumm Refuge	312 acres	Lease June 16, 1926	Expires June 16, 1931
Hearn & Stevenson Refuge	200 acres	Lease June 1, 1926	Expires June 1, 1931
Bromley Refuge	440 acres	Lease May 4, 1926	Expires May 4, 1931
Doak Refuge	300 acres	Lease April 23, 1926	Expires April 23, 1931
Chandler Refuge	200 acres	Lease April 16, 1926	Expires April 16, 1931

Total acres under lease	28,339
Total acres purchased	4,186
Total acres leased and purchased	32,525

The game refuges owned by the state have recently been increased through purchase. In Washington and Alleghany counties 1,970 acres have been acquired and 977 acres in Garrett County. The state warden recommends the purchase of additional areas for the establishment of sanctuaries, stating that each county of the state should have a preserve where game can be propagated in its natural state.

Swepson Earle is Commissioner of the Conservation Department. E. Lee LeCompte is the State Game Warden, with headquarters in the Munsey Building at Baltimore.

Massachusetts

Massachusetts has long been active in the protection of her outdoor assets. Lacking an official agency, a number of organizations were authorized to acquire park areas and open them without cost to the public for recreation. Forest and game work, begun in 1914 and 1886 respectively, are making rapid progress. They are under separate divisions of the Department of Conservation. A study of the recreational opportunities is now under way, which may result in the placing of state-owned park areas under the Department of Conservation.

State Parks

Massachusetts has a variety of reservations utilized for recreational purposes. The first of these areas was created in 1898 when Mount Greylock Reservation was established. A portion of this tract was a gift to the state. It has been well developed for recreation. There are in all seven such reservations, with a total area of 12,962 acres, each under a separate commission.

There are a number of agencies in the state which have authority to acquire park areas and open them for recreation. When such areas are so developed the lands are exempt from taxation. The Trustees of Public Reservations was the first of these organizations. This organization was established in 1891. The creation of the Metropolitan Park Commission followed in 1892. This latter commission has created around Boston a notable system of parks and parkways. The Appalachian Mountain Club also has authority to hold in trust for the public reservations in Massachusetts.

The need for coordination of effort in the administration of park areas due to the many different agencies so operating was recognized in 1924 when the legislature created a Joint Special Committee of Public Reservations to investigate the possibilities of further acquisitions, particularly shore-front lands. This committee consisted of one senator and three representatives. In 1925 it reported to the legislature, emphasizing the fact that the beaches of the state were being acquired rapidly and that the public was excluded from them. It suggested that no time be lost in acquiring a portion of the remaining seashore frontage. Joint acquisition by the state, counties and towns was suggested. No action was taken on the report of this commission, but the legislature directed the continuation of its study by another commission consisting of the Commissioner of Public Safety and the Commissioner of Conservation. This commission was directed to investigate the opportunities for use of the beaches by the public and to recommend whether reservations should be established. It was also to recommend which portion of the area to be acquired should be purchased by the commonwealth and which by cities, towns, or counties. An appropriation of $500 was made.

In the same year the Trustees of Public Reservations began a parallel study of open spaces for the protection of scenery, historic sites, wild life, and forests, and for the purpose of determining areas which should be set aside for these purposes. It appointed a committee known as the Committee on Needs and Uses of Open Spaces, of which Charles S. Bird, Jr., was chairman, W. Roger Greeley, vice chairman, and Charles W. Eliot, 2d, secretary. Lawrence B. Fletcher is now secretary. The committee included representatives

of the following cooperating associations—the Massachusetts Forestry Association, the Massachusetts Fish and Game Protective Association, the Appalachian Mountain Club, Massachusetts Civic League, the State Federation of Women's Clubs, the Federation of New England Bird Clubs, the Massachusetts Federation of Planning Boards, the Boston Society of Landscape Architects, the Massachusetts Audubon Society, and the Society for the Preservation of New England Antiquities.

The special commission of state officials, which had the assistance of this Special Committee on Needs and Uses of Open Spaces, reported to the 1926 Legislature, emphasizing again the need for additional recreational spaces and laying particular stress on the growing necessity for acquiring seashore areas. At a meeting at Hyannis held by the special committee, the speakers representing the town were unanimous in their opposition to state control of shore reservations in the towns on Cape Cod. There was a general agreement, however, favoring the state's cooperation and assistance in financing the cost of such reservations. The commission reported to the legislature its opinion that the cities and towns should acquire, operate, and control such beaches and foreshores as the public interest required. It recommended that before the state assumed such functions the towns should be given an opportunity to acquire areas. It further recommended that bathing facilities be provided and made self-sustaining. The prohibition of camping on a public shore reservation was suggested, due to the difficulty of enforcing adequate measures for proper sanitation and policing. The assistance of the state in the construction of roads to shore reservations was recommended. The Trustees of Public Reservations were suggested as the agency to have charge of shore reservations, if they were acquired. The commission also recommended that cities and towns bordering on tidewater be authorized to establish a Board of Public Reservation Commissioners vested with authority to acquire and develop for public use such beaches and foreshores within their confines as they deemed necessary.

The Committee on Needs and Uses of Open Spaces completed its report on public open spaces early in 1927. As a result of this survey a map was compiled which emphasized the need of a state plan for the distribution of open spaces and the adoption of a policy for their acquisition, development, and maintenance. The map shows the lands held for the public. The committee recommended a comprehensive survey of the present uses of all lands in the state, their accessibility, and potential values for various purposes. The formulation of a policy for the joint administration of the areas now under various agencies was recommended. The committee finally

requested the Governor to appoint a special unpaid commission to report to him on the advisability of state action in these matters.

The Committee on Needs and Uses of Open Spaces was appointed by Governor Fuller to make this study. Its program consisted of an inventory of scenic and historic sites, the recording on the open space map of all proposed additional open spaces for study, and a plan for the coordination of the agencies administering the existing open spaces. Among the possibilities for such coordination the committee is considering the amendment of laws setting up state reservation commissions to make the Commissioner of Conservation an ex-officio member of such commissions; the organization of a Council of Parks similar to that of New York, and the creation of a Division of Parks in the Department of Conservation. The committee engaged Benton Mackaye to make suggestions on "Topographic Philosophy," and a tentative plan for special places which can be used in conservation matters has been submitted. Chairman Bird of the committee recommends that the state be given authority to take reservations through the right of eminent domain.

When it was incorporated by the state in 1921, the Trustees of Public Reservations was authorized to acquire and hold real estate not exceeding $1,000,000 in value. It now has eight reservations. It was further authorized to hold property for the support of its objects, not exceeding an additional $1,000,000 in value. Gifts of securities amounting to approximately $50,000 have been received, and the income of this sum is applied to the maintenance of the park areas. Most of these reservations are forested and include scenic or historic features. They have general recreational use which will be more largely developed as funds are available. The eight properties, all gifts, total 566 acres, and are as follows: Virginia Wood, Stoneham, 20 acres; Goodwill Park, Falmouth, 139 acres; Rocky Narrows, Sherborn, 21 acres; Mount Ann Park, Gloucester, 50 acres; Governor Hutchinson's Field, Milton, 10 acres; Monument Mountain Reservation, Great Barrington, 260 acres; Pine Knoll, Sheffield, 6 acres; Petticoat Hill, Williamsburg, 60 acres.

H. M. Channing is secretary of the Trustees of Public Reservations and may be reached at 18 Tremont Street, Boston.

The Appalachian Mountain Club holds the following reservations in trust for the public: Parsons Reservation, Mount Grace, Warwick, 40 acres, acquired in 1897; Carlisle Pines Reservation, 20 acres, acquired in 1902; Gilson Hill Reservation, Billerica, 6 acres, acquired in 1909.

George A. Rust is president of the Appalachian Mountain Club and may be reached at 5 Joy Street, Boston.

Forests

With a total land area of over 5,000,000 acres, Massachusetts has a present forested area of 3,000,000 acres. Originally the entire area of the state was forested. There is no virgin timber remaining. The importance of preserving and perpetuating these forest lands was realized in 1904, when the first forestry organization was created. The State Forest Commission was formed in 1914, but was dismissed in 1920 when the Department of Conservation was created. The Division of Forestry is under the charge of the state forester, who at present is also Commissioner of Conservation.

The activities of the Division of Forestry cover the purchase and maintenance of state forests, the maintenance of forest nurseries, a forest fire prevention system with 42 watchtowers, the suppression of the gypsy moth and the brown-tail moth, and extension work.

In 1922 a yield tax law was adopted under which land may be classified where the land and growth are not valued at more than $25 per acre and give promise of yielding 20,000 board feet per acre of softwoods and 8,000 board feet of hardwoods. There is no limit on the amount of land which can be placed under this classification. Timber may be cut by the owner at any time on payment of a product tax of 6 per cent on stumpage value. This tax is collected by the town, and one-tenth of the proceeds goes to the state.

Massachusetts now has 43 state forests with a total area of 109,000 acres. Most of these purchases were authorized by law in 1920, which provided for the expenditure of $3,000,000 in 15 years, the total area not to exceed 100,000 acres. The commission is prohibited by law from paying more than an average price of $5 per acre for forest land. In 1926 a bill was introduced in the legislature, sponsored by the Massachusetts Forestry Association, which proposed to increase to 250,000 acres the land to be acquired. This bill failed of passage.

The state forester has authority to accept gifts of land for state forests, although the commission reserves the right to refuse to accept areas unless they are suitable for reforestation or already under forest reproduction. Bond issues are not favored, and this method of acquisition has never been adopted.

A survey of the forest resources of the entire state was authorized several years ago. Its purpose was to obtain a first-hand knowledge of growing, cutting, and marketing conditions. As a result of the survey the commission is in a better position to select additional forests, and can extend more efficient aid to individuals on the handling of wood crops and tell them how to get the most out of these crops.

The state forests are supported entirely through appropriation, and the entire income reverts to the state treasury. No admissions

are charged except at the Standish Monument, where a toll of 10 cents must be paid. Roads and trails have been built in each of the forests, and camp sites have been set aside. In the Myles Standish State Forest, camp lots may be leased on a five-year basis at $10 per year. Group camping is permitted, and the Boy and Girl Scouts, the Y. M. C. A. and Y. W. C. A., and similiar organizations are permitted to develop camps in certain areas Fireplaces and water are the only facilities furnished by the state. In 1924 a law was passed authorizing the commission to lay out, construct, and maintain trails and paths in the state forests and public reservations and to purchase such lands or easements as may be necessary to make such trails continuous. This law was passed through the interest of the Appalachian Mountain Club. The forests are inaccessible in winter.

The state forester recommends that the state forests which are suitable for use as wild life sanctuaries be utilized to a certain extent for this purpose. He further advocates that only a portion of each forest be set aside as a sanctuary, the remainder of the area to be open to public shooting. Five of the state forests are now sanctuaries, but he believes this use should only be made of the areas which are suitable in character.

Massachusetts cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $17,920 for forest fire protection, $2,000 for the distribution of forest planting stock, and $1,500 for farm forestry extension.

Game

Effort for the conservation of the wild life of Massachusetts resulted in 1886 in the extension of the jurisdiction of the Commissioners of Fisheries to include game. By action of the legislature in 1919, the functions of the commissioners were transferred to the Department of Conservation and a Division of Fisheries and Game created. The executive officer is the director of the Division of Fisheries and Game.

The Chief Warden is charged with the enforcement of the game laws of the state, under the supervision of the director. A deputy chief warden and a staff of wardens work under the direction of the chief warden. The game laws of the state provide that each city and town may request the appointment of a fish and game warden for that town. The director of the division recommends that each municipality have an efficient and energetic warden holding office, since such a force supplementing the regular district wardens would be very valuable to the state.

The work of the division is carried on through the income from licenses, fines, and penalties. Since 1926 a special sporting license has been issued. The sportsman now pays $2.25 for a license, which permits him to pursue all species of game and fish. The trapper, on payment of the fee for this license, may take throughout the open season unlimited quantities of all fur-bearing animals except raccoons. Moneys paid in by the sportsmen more than pay the operating costs of the division. The nonresident sporting license is $5.25. Because of the increasing demands on the resources of the division, the director recommends a gradual increase in the cost of the sporting licenses and the appropriation of a small amount from the general funds of the state.

Public interest in the conservation of game has advanced rapidly in Massachusetts, and many individuals and local and state organizations take an active part in this work. Outstanding recent events were the formation of the Associated Committees for Wild Life Conservation and many local chapters of the Izaak Walton League of America. The former is a council composed of representatives of the Massachusetts Audubon Society, the Massachusetts Fish and Game Association, and the Federation of the Bird Clubs of New England, Inc.

The cooperation of the public is secured through educational and publicity work. Illustrated lectures are given before schools, fish and game clubs, and other associations. Publicity work is carried on through the press, and an effort is made to keep the public fully informed of the activities of the department.

Massachusetts has four game farms located at Ayer, North Wilbraham, East Sandwich and Marshfield. These farms are all stocked with pheasants, and in addition quail are bred at East Sandwich.

Massachusetts long ago recognized that opportunities for hunting and fishing must be preserved through the medium of wild life sanctuaries. It believes that areas of substantial size embracing physical conditions that will provide proper nesting and feeding grounds for wild life native to the state should be acquired and set aside. Through a law enacted in 1923 the Commissioner of Conservation is empowered to acquire land by purchase or to receive land in trust for the conservation of wild life. Under this law the nucleus of a chain of wild life sanctuaries has been formed through gifts to the state by the Federation of the Bird Clubs of New England, Inc., Dr. John C. Phillips, Frank G. Allen, the late Ray Nye, Susan Minns, the late Eugene P. Bartlett, Ernest Whitcomb, the Associated Committees, and by contributions from many local fish and game associations. These state-owned sanctuaries serve as nat-

ural breeding grounds. Additional funds are necessary for further extensive developments.

Under an act passed in 1909 all state reservations, including state forests, are game refuges. The Commissioner of Conservation believes, however, that a distinction should be made between state forests and wild life sanctuaries. He believes there should be a substantial tree growth on a wild life sanctuary, but that trees should not necessarily be cut down when they reach their prime, as is required in the economic use of state forests. In the flooding necessary to maintain breeding and feeding areas for water fowl, and further developments for wild life, the production of trees is often a secondary consideration. For these and other reasons the commissioner believes state forests as a whole have a limited value as wild life sanctuaries, but should be used in part for these purposes, setting aside a limited portion of the forest area and opening the surrounding land to public shooting.

Game preserves established under lease are as follows:

Designation	Created	Acres	Game and birds on refuge
MASSACHUSETTS			
Lynnfield Reservation, Essex County.	Temporary control from May 25, 1925, to May 25, 1930. Created under Secs. 69-75, Ch. 131, Gen. Laws of Mass.	750	Ducks, quail, pheasants.
Millis Reservation, Norfolk County.	Temporary control from Oct. 29, 1925, to Oct. 29, 1930. Created under Secs. 69-75, Ch. 131, Gen. Laws of Mass.	2,500	Quail, pheasants, black ducks.
Randolph Reservation, Norfolk County.	Temporary control from Nov. 10, 1924, to Nov. 10, 1929. Secs. 69-75, Ch. 131, Gen. Laws of Mass.	650	Grouse, rabbits.
Hubbardston Reservation, Worcester County.	Temporary control from Dec. 15, 1924, to Dec. 15, 1929. Created under Secs. 69-75, Ch. 131, Gen. Laws of Mass.	3,000	Pheasants, rabbits.

William C. Adams is Director of Fisheries and Game. His headquarters are in the State House at Boston.

Michigan

The protective and constructive supervision of over 57,000 miles of land area and 2,000 miles of Great Lakes coast line and innumerable inland lakes is vested in the Department of Conservation.

Until 1921 state forest, park, and game work was under separate administrations. In that year all of this work was placed under one department created by the legislature, and known as the Department of Conservation. It is composed of a commission of seven members appointed by the Governor, and subject to confirmation by the Senate. The commissioners receive no compensation other than necessary travel expenses. The chairman of the commission is designated by the Governor. Each member holds office until the appointment and qualification of his successor. The administrative officer of the commission is a Director of Conservation appointed by the Governor and confirmed by the senate.

The Public Domain Commission, the State Board of Fish Commissioners, and the Board of Geological Survey were transferred to the Department of Conservation, as well as the state park, forest, and game commissions. The department is directed "to protect and conserve the natural resources of the State of Michigan; to prevent the destruction of timber by fire or otherwise; to promote the reforesting of nonagricultural lands belonging to the state; to guard against the pollution of lakes and streams within the state; and to foster and encourage the protection and propagation of game and fish."

No state has given wider powers to its Department of Conservation. Gifts and grants of land may be accepted to be devoted to any of the purposes for which the department was created. It has authority to purchase, sell, exchange, or condemn lands. Approximately 1,000,000 acres are under its control, largely made up of lands reverting to the state for the nonpayment of taxes. All lands on which taxes have not been paid for five or more years now come under the control of the department. Such land, where individual parcels are of sufficient size, is available for immediate development and is utilized as state parks, forests, game refuges, or public hunting grounds. The smaller parcels may be consolidated by exchange and utilized in the same way.

The Economic Land Survey which is conducted by counties is one of the most interesting projects of the department. This survey deals with every type of development, such as agricultural improvement and betterment, forest protection and production, wild life conservation and propagation, the preservation of water and woodland areas for recreation, and other matters of both state and local interest. Its object is to determine the highest use of all lands of the state. The resources of each county are described in detail by means of maps and reports which, when completed, are available for general distribution. This survey was first instituted by P. J. Lovejoy, of the Committee of Conservation of the Michigan

Academy of Arts and Letters, now part of the Department of Conservation, under the direction of H. J. Andrews.

The members of the Conservation Commission are Howard B. Bloomer, Detroit, chairman; Harold B. Titus, Traverse City; Norman Hill, Sault Ste. Marie; Lee J. Smits, Detroit; Phil Schumacher, Ann Arbor; Wm. H. Loutit, Grand Haven; and Harry H. Whiteley, Dowagiac. George R. Hogarth is Director of the Department, with P. J. Hoffmaster as Superintendent of State Parks, Marcus Schaff as State Forester, and P. S. Lovejoy in charge of game work. The headquarters are in Lansing.

State Parks

The first state parks in the country were created in Michigan in 1885 when Mackinac Island and Fort Machilimackinac at Mackinaw City, originally military reservations, were transferred to the state for park purposes by the Federal Government. The old fort was built in 1780 by the British. A summer resort has been developed on Mackinac Island; land is leased for summer homes, boarding houses and hotels have been built under concession, and golf courses and bathing beaches have been constructed. The income from these concessions averages about $10,000 a year. This income is not available for maintenance of the park, but goes into the state treasury. Appropriations are made each year by the legislature. An interesting addition to Mackinac Island State Park was acquired from the United States Government. Round Island, a surplus lighthouse property, containing 300 acres, was added in 1927. This brought the area of the park up to 1,983 acres, of which 1,320 acres were acquired through gift and 663 acres purchased. Machilimackinac State Park contains 25 acres. The park is under a separate jurisdiction and is administered by a commission, consisting of Governor Fred W. Green, ex-officio chairman; G. A. Hendricks, of Grand Rapids; Dana H. Hinkley, of Petoskey; John W. Fead, of Port Huron; Burt D. Cady, of Port Huron; and Ira A. Adams, of Charlevoix. Frank A. Kenyon is superintendent of the park.

Interest in the creation of a comprehensive state park system developed as a result of the creation of these first parks. In 1919 an act was passed by the legislature creating the Michigan State Park Commission. This commission was composed of ten members appointed by the Governor. It was given supervision of all lands acquired as state parks. It has power to accept in the name of the state, park lands acquired by purchase, condemnation, gift, or devise. Lands devoted to this use are exempt from taxation.

There has been no objection to the loss of taxes, since the township authorities believe the establishment of parks is a benefit to the township. The act directs that in the purchase or condemnation of lands for park purposes the commission give preference to areas bordering on the Great Lakes, its tributaries, or on the inland waters of the state. A state park fund was created, the proceeds of which could be used as the commission directed. An initial appropriation of $75,000 was made for the fiscal year 1920.

Upon the creation of the Department of Conservation in 1921, authority vested in the State Park Commission was transferred to the department. All rights, powers, and duties vested in the commission were transferred to the department.

Michigan's parks have been acquired through various methods. A majority were gifts to the state by public-spirited individuals, such as the Dodge Brothers and Howard B. Bloomer, of Detroit. The Muskegon State Park was acquired partly through gift and partly by legislative appropriation. In this instance the Chamber of Commerce of Muskegon subscribed $35,000 toward the purchase of the park area. Several surplus lighthouse properties have been transferred to the state by the Federal Government. The Fort Wilkins State Park was acquired by the county, and later turned over to the state. Some lands have been set aside for park purposes through the nonpayment of taxes. Although the department has authority to condemn land for park purposes, this method is not used unless absolutely necessary.

The parks of Michigan range in size from 12 acres to over 8,000 acres in Hartwick Pines State Park and 15,000 acres in the Hanson Military Reserve. The Superintendent of State Parks, Mr. Hoffmaster, recommends that, since they are all well located, steps be taken for the enlargement of the smaller parks through the purchase of adjacent land. Location and size are becoming important factors in park development, and since the parks of Michigan have great recreational use, it is important that their area be increased.

No charge is made either for admission to the parks or for camping. Camping permits are issued for two weeks' duration. Shelters are provided in several of the parks for campers, but a majority bring their own tents. Sanitary facilities and pure water are provided. The receipts from the parks go into the general state fund and can not be used for park development. A number of the parks are also provided with roads and trails, while fishing is possible in a majority.

Summer use of the state parks is extensive. The season runs from May 15 to November 1. Little use has been made of them as yet for winter sports, but the superintendent is planning to de-

velop several of the larger parks for skating, skiing, and coasting. This will unquestionably prove popular and increase the use of these areas.

Not all of Michigan's parks have been developed extensively for public use. As the appropriations permit, all of the parks will be provided with camping, boating, and restaurant facilities, trails, roads, and other developments.

Superintendent Hoffmaster recommends the acquisition of park land as rapidly as possible, in order that areas may be acquired before there is a further advance in the price of land and before they are marred through commercial developments. There still remain numerous areas which can be obtained at a comparatively low price. This is particularly true of upper Michigan. The department has adopted the policy of locating a large number of its parks where they will be easily accessible to the public and can accommodate thousands of people. The department is interested in obtaining, so far as possible, areas where the original virgin forest remains. It desires frontage on the Great Lakes, several sand dune areas on the lake shore, large areas of swamp and lowlands to conserve the wild fowl and migratory birds, areas in the Upper Peninsula, such as the Porcupine area, and the restoration of places of historical fame.

The parks which have been created include practically every variety of natural scenery found in Michigan, with the exception of the Upper Peninsula virgin forest, where the state hopes to secure land. Among the proposed parks is one of 20,000 acres in the Porcupine Mountains in Ontonagon County. This region is in the western part of the Upper Peninsula and has a frontage on Lake Superior and two smaller lakes, the highest level reaching over 2,000 feet. It will be acquired through purchase, the transfer of state-owned land, and possibly from gifts. Another proposed park of large size is the Pictured Rocks area along Lake Superior. The acquisition of this land would make a picturesque cliff front accessible to the public. Two parks of sand-dune character in Mason County and Oceana County were recently transferred to the state by the Federal Government.

State Forests

The forested area of Michigan is rapidly vanishing. Originally the state had over 35,000,000 acres of forested land out of a total land area of 36,371,000 acres. The present forested area is only 14,000,000 acres, including immature timber, and of this only 4,000,000 acres are virgin timber.

Interest in the preservation of the forests of the state culminated in 1899 in the establishment of the State Forestry Commission. This commission in 1921 was absorbed into the Department of Conservation.

Under an act passed in 1925 the creation of commercial forest reserves from which all mature forest growth has been removed was authorized. The owner may develop and maintain a forest through planting or reproduction. Such forest reserves are classified by the department on the application of the owner. Lands accepted as commercial forest reserves are not subject to the general property tax, but to a specific tax of 10 cents an acre, plus a 25 per cent yield tax. These lands may be withdrawn from classification on application to the department when a fee is paid of 5 cents per acre for each year the land has been classified up to 15 years. This fee increases with the number of years the area has been in this status. The funds received are divided between the state treasury and the county in which the lands are located.

The most important forest activity in Michigan is the creation of state forests from delinquent state tax homestead lands and the acquisition of lands for state forests by land exchange with individuals and the Federal Government. Approximately 375,000 acres have been designated as forest reserve lands, having been set aside by official action for that purpose. Most of these forests are lands which reverted to the state for the nonpayment of taxes. Only 300,000 acres, however, are actually under forest management, and they are embraced within the ten state forests. The first state forests were the Higgins Lake and Houghton Lake Forests, created in 1903.

While the state forests are administered primarily for forestry purposes, they likewise provide outdoor recreational opportunities, though not definitely developed for such a purpose. They offer a large degree of wilderness recreation and can furnish such opportunities to thousands of people if extensively developed for camping. The state forester believes that it is imperative that additional forest lands be acquired. He recommends the securing of state forests by purchase, but states that additional lands should also be secured by exchange and gift, as well as the retention of all acreage reverting to the state through the forfeiture of taxes. The last legislature provided for the retention of such lands by the state.

The state appropriation for forestry work during 1928 is $192,100.

Michigan cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $58,104 for forest

fire protection and $2,000 for the distribution of forest planting stock.

Game

Effort for the protection of the wild life of the state began as early as 1887, when the Game and Fish Department was established. In 1907 the department was reorganized, and in 1915 it was placed under the jurisdiction of the Public Domain Commission. In 1921 it was transferred to the Department of Conservation.

During 1928 a new game division was established to separate the functions of law enforcement and of game and fur propagation. Administration of the state game refuges, the state game farm, the fur and game-breeder's license laws, and investigations related to the many technical problems involved with game and fur management are under this game division.

Enforcement of the game laws is under the charge of game wardens and official state trappers. The number of such employees reached 176 during the past year. The regular warden service is supplemented with more than 400 volunteer wardens who receive their commissions after passing the proper examinations. Many forms of wild life are found in Michigan, including deer, ring-neck pheasant, ruffed grouse, prairie chicken, quail, bears, moose, elk, beaver, muskrat, rabbits and water fowl.

The first state game refuge in Michigan was established in 1916, when the Hanson Military Reservation was deeded to the state. This was followed in 1920 by the creation of the Midland Refuge near Sanford.

In 1921 the director of the Department of Conservation was authorized to secure additional state game preserves through purchase or the exchange of land. He was further authorized, in 1922, to enter into leases, for a period of not less than ten years, with private owners of land on which "deer yards" were located. No such leases have ever been executed, and it is doubtful if they will be arranged for, since they have generally proven unsatisfactory. Outright ownership by the state has been found preferable. The establishment of a zone of public hunting ground surrounding all state game refuges was authorized in 1922 by a resolution of the Conservation Commission.

In 1923 special legislation was enacted to control the development of private game preserves or hunting and fishing clubs. It is now unlawful for any person, corporation, or association to own a tract exceeding 15,000 acres which is utilized for hunting or fishing. Such private preserves can not be located within two miles of each other. The validity of this statute has been questioned.

Courtesy Dept. of Conservation, Indiana.

ALL THE COMFORTS OF THE CITY HOTEL FOR LOVERS OF THE OUTDOORS IN ONE OF NATURE'S BEAUTY SPOTS, POKAGON INN, POKAGON STATE PARK, IND.

The section of the Conservation Act permitting the acceptance of land for game preserves was amended in 1925, and the Department of Conservation was given authority to secure game preserves through purchase, exchange, or condemnation. These lands are taxed, the tax being paid from the game fund.

The department has adopted a policy of locating game preserves in relatively large areas of wild land, having at least fair cover. These areas must have generous supplies of water easily available. At least a fair stocking of wild life is required. A standard preserve should contain from 2,500 to 6,500 acres, surrounded by a zone of state-owned land, at least a mile in width, to be used as a public hunting ground, making the total acreage of a standard game preserve from 10,000 to 18,000 acres. The department also believes that lands already owned by the state should be used in building up new preserves, and that such preserves should be located where local cooperation may be obtained.

Seven state game preserves have been established. On the first of these preserves an effort was made to develop breeding grounds for the propagation of pheasants, wild turkeys, wild ducks and reindeer. Elk were imported and released on the Otsego Preserve. Of these experiments, only that with the elk proved sufficiently successful to justify its continuance. Artificial propagation on the refuges ceased and is now concentrated at the State Game Farm near Lansing, where the principal product is the ring-neck pheasant. On the standard state preserves the native game species, particularly deer, bear, and partridge, find sanctuary.

The department recommends the expansion of the state game preserve system, legislation to clear up the status of lands secured through tax delinquency, and legislation to regulate the degree of control to be exercised by the state over private preserves.

Minnesota

Minnesota, with its lakes, its rivers, waterfalls and rapids, and its virgin timber, provides many opportunities for the enjoyment of outdoor life. It is probably in a measure for this reason that it was one of the first states to begin the development of a state park system. Its state forests are well and intensively developed for recreational use. It has made rapid progress in its game work.

The development of state parks has been hampered by the economy program of the past few years. Several of the most outstanding of the areas already created form the nucleus of what might well be one of the finest state park systems in the country if funds could be secured for their proper development.

Until 1925 parks, monuments, forests and game work were under various separate divisions of the state government. With two or three exceptions, the state parks were placed under the administration of the State Auditor as ex-officio Land Commissioner. In 1925 an act relating to the reorganization of the state government was passed by the legislature and a Department of Conservation was created. This department is under the supervision and control of a commission, consisting of the Commissioner of Forestry and Fire Prevention, who is statutory chairman, the Commissioner of Game and Fish, and the State Auditor, serving in his capacity as ex-officio Land Commissioner. Each of the above officers have the same duties committed to them prior to the passage of this bill. The members of the commission are Grover M. Conzet, Commissioner of Forestry and Fire Prevention, chairman; George W. McCullough, Fish and Game Commissioner; and Ray P. Chase, State Auditor. The State Auditor may be reached at the State Capitol at St. Paul; the other commissioners at the Old Capitol Building at St. Paul.

State Parks

The first state park, Itasca Lake State Park, was created in 1891. In the same year the state legislature appointed a committee to purchase the Birch Coulie Battlefield, an area which falls within the monument classification. Itasca State Park was acquired largely through the aid of the United States Government, since Congress granted the state all unpatented lands within the area desired, on condition that the state acquire the privately owned tracts. These lands were acquired by gift, purchase and condemnation. The park contains about 32,000 acres, with a timber value of $1,380,000 and a land value of $220,000. It has always been under the administration of the Commissioner of Forestry.

The creation of other parks followed from year to year until Minnesota now has the nucleus of an outstanding state park system. These parks, however, are the result of individual effort and local demand. Some of the areas do not measure up to the standard set for state parks, and a survey and study is desirable with the view to excising from the permanent system such areas and placing them to their proper use, and adding outstanding beauty spots in every section of the state.

When the state parks were placed under the charge of the State Auditor no commission or department existed which should properly have charge of them. The State Auditor was given authority by an act of 1923 to acquire lands desirable for acquisition as state parks, public camp grounds or monument sites, and also to accept

gifts for the above purpose. The act provided the Governor and the treasurer should unite with the auditor in determining it to be to the state's interest to accept the proposed gift. The state may also exercise the power of eminent domain for the acquisition of tracts for state parks. The same act prohibits the charging of fees for camping and the leasing of any of the land for the erection and maintenance of private cottages or permanent private camps.

In 1925 administration of the state parks passed to the newly created Conservation Commission. The State Auditor and the Commissioner of Forestry still retain direct authority over the parks which were under their care before the creation of the commission.

Following the creation of the Conservation Commission, the State Auditor, Mr. Chase, wishing to make the most of the unusual park possibilities, recommended that a centralized department to administer and develop the state parks be secured, and that they be placed under the charge of a responsible executive, who would then care for their maintenance and furnish the legislature expert advice covering the acquisition of suggested additions. Upon his recommendation the Conservation Commission appointed as Director of State Parks F. Rodney Paine, who had been superintendent of the Jay Cooke State Park, southwest of Duluth. Expenditures of the various departments of the state are controlled and must be approved by the Commission of Administration and Finance, created by the organization bill. This commission refused to approve the salary of the director, contending that there was no need for the creation of such a position. Before the commission finally agreed to the new plan, Mr. Paine accepted the position as manager of Duluth city parks and was no longer available. Unquestionably the park work of the state was seriously hampered by the absence of an expert head. A general campaign of education on the value of park areas to the people of a state will probably be necessary before adequate appropriations can be obtained and a worth-while system inaugurated.

The development of the parks has been hindered seriously by insufficient appropriations. No general appropriation has been made for the state park system, but local committees have secured appropriations for individual parks. Some of the parks located in close proximity to cities or towns have received financial aid from these cities and towns, and in some instances the county commissioners have helped.

The parks have been secured by a variety of methods, such as legislative appropriation, general tax levy, condemnation, gifts from the Federal Government and individuals, and the transfer of state and Federal lands. Bond issues for such purposes are not approved

by the present authorities as a method of securing state park areas. It is thought in Minnesota that state parks should be acquired on a "pay as you go" plan, since the amount necessary to be raised can easily be met through direct appropriation or by a tax levy. Nearly $1,250,000 already has been expended in the purchase of land and the development of parks.

A few concessions have been granted, such as the leasing of the Douglas Inn in the Itasca Park. There is no admission charge to any of the parks, since they are not considered sufficiently developed to justify such a charge. Camping is free. American Legion posts and Boy Scout and Girl Scout troops have been permitted to build their own camps on state park property and no rental is charged.

The appropriation for state parks in 1928 was $85,870.

The state owns a large acreage of shore land on lakes and rivers. For many years such land was sold at auction by the Land Department, receipts going into the permanent trust funds. Due to the demand for lake shore property, the State Auditor decided some years ago it was advisable to no longer offer these lands for sale. All state lands abutting on lakes and watercourses were withdrawn from sale. The legislature, by resolution, approved the policy and withdrew all such lands and the timber thereon from sale for all time, authorizing the State Auditor to lease them for camp-site purposes at nominal rentals.

Proposed Parks

A number of desirable areas have been suggested for possible state parks, among them tracts on the shores of Leech Lake, Mille Lacs Lake, Lake Okabena, Lake Benton, Red Lake, and Albert Lea Lake, a mile from the city of that name. This latter area is now a game preserve. Other areas have been recommended adjacent to Blue Mound, in Rock County, which has unusual geological features; the Pipestone Indian Reservation, near Pipestone, and Camden Hills, in Lyon County, an area naturally suited to camp sites, fishing and other recreational development.

State Monuments

The first state monument was created in 1895.

In that year also a group of Minnesota men interested in the history of the state and anxious to mark places of particular historical importance organized the Minnesota Valley Historical Society. This association, which is no longer in existence, marked various spots in Redwood and Renville counties with stones and markers. Similar organizations have erected monuments and markers in dif-

ferent parts of the state, some on privately owned lands, others in municipal areas.

The state now owns four monuments, ranging in size from one to 12 acres. They all commemorate some historical event important in early Minnesota history and the Sioux uprising. None of these areas have recreational development.

State Forests

The first forestry law, a forest protection law, was passed in 1895. This was followed by the establishment in 1911 of a forestry board. The board was abolished in 1925, and the office of Commissioner of Forestry and Fire Prevention was created. The commissioner was given all the powers and duties formerly vested in the Forestry Board. In 1925, under the act organizing the departments of the state, the Commissioner of Forestry and Fire Prevention was made a member of the Department of Conservation, with the same authority and duties.

With an original forested area of 38,400,000 acres, Minnesota still has 27,000,000 acres in some type of forest growth. Only 2,500,000 acres of virgin timber remain. The state itself owns some two million acres of forest land, much of which is unfit for agriculture and is either well timbered or cut over. It owns large areas of pulpwood forests which are largely on peat lands.

One of the most important activities of the commissioner is the protection of all forest land from fire. The Federal Forest Service, townships, and counties assist in this work. In 1925 an act was passed authorizing counties, towns, cities, and villages to contract debts and pledge their public credit for improvements to aid in the prevention or abatement of forest fires. Municipalities may also levy a tax of not more than 5 mills annually on taxable property to make a fund known as a fire fund, in order that necessary precautions may be taken against forest fires.

Especially noteworthy legislation passed by the 1927 Legislature relating to forestry included the creation of an ad interim commission to study the forestation of lands, delinquent real-estate taxes, and financing counties and taxing districts in the forest areas of the state. A report of this study is to be made to the next legislature. The Conservation Commission was also directed to make recommendations covering all lands owned by the state which are suitable for forestation purposes.

The state cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 received $64,433 for fire protion and $1,860 for farm forestry extension.

The 1927 state appropriation for forestry work was $174,000.

The following state forests had been created up to the end of 1927—the Pillsbury, Burntside, and New State forests. The Burntside State Forest was granted to the state by act of Congress in 1904 for tree propagation and playground purposes.

Both the Burntside and New State forests are developed for recreation and are a mecca for tourists. They are made up of state lands and United States grant lands. Public camp grounds and summer home sites are being developed on sections adjacent to lakes and rivers as rapidly as the demand requires. The Kabetogama Public Camp Ground, located at Gappa's Landing, on Lake Kabetogama, has a capacity of from 100 to 150 people. The West Bearskin Public Camp Grounds will take care of 50 people. The one in Itasca State Park and Forest will accommodate several hundred. This is the largest camp ground in the state. There are many others throughout the state forests which will accommodate from 5 to 25 people. Some of these have been improved. Camp grounds are also being established along the canoe route, the portages, or carrying places, between the lakes being placed on state land whenever possible. Lake shores in the New State Forests which are not used for public camp grounds are subdivided into building lots, which are leased to people who desire to have a small summer home on a lake. The rental for these sites is from $10 to $15 a year, depending upon the location.

The state forests are now divided into many small areas and the state forester recommends that they be consolidated by purchase or exchange into larger units to make possible more economical management. He also recommends the establishment of many new state forests and the enlargement of those already in existence. Additional areas were set aside in 1927 in Cass, Beltrami and Itasca counties.

Minnesota owns a large acreage in the various national forests and there have been suggestions that the state-owned land in the Superior National Forest be exchanged for an equal area in one continuous body and devoted to state park use. The last legislature set aside all state lands within the Minnesota National Forest as a state forest. These lands, however, are not in a compact area but are scattered throughout the National Forest.

Game

The first legislation for the propagation and conservation of wild life was passed in 1874, when a Board of Fisheries was created. The Board consisted of one member from each congressional district appointed by the Governor. In 1878 the membership of the Board

was reduced, but it continued to function until 1887. In that year the office of Chief Game Warden was created and the warden was added to the existing Board. By legislative act in 1891 the Board was abolished and the Board of Game and Fish Commissioners was created. The commission consists of five members appointed by the Governor. The Governor also, under this law, appointed a chief game warden, who became the secretary of the Board of Commissioners and acted as business agent. The Board was abolished in 1915, and the office of Game and Fish Commissioner was created. The commissioner is appointed by the Governor for a term of four years. All matters pertaining to the propagation and conservation of wild life are under his jurisdiction.

Until 1923 the work of the department was supported wholly by legislative appropriations. Through an amendment passed that year, funds from the sale of nonresident fishing licenses and resident fish-house licenses were reappropriated to the department to be used for any purpose in connection with the preservation and propagation of wild life. The Game and Fish Department over a long period of years has been more than self-sustaining, since with a few exceptions the total of appropriations for any one fiscal year has not equaled the revenue produced and credited to the general revenue fund. It has been advocated by many authorities that the revenues should be made automatically available for the use of the department, as is done in so many of the states.

Believing that education is one of the great fundamentals to intelligent wild life conservation, the department recognizes it as one of its most important functions. An effective educational campaign has been conducted. The sportsmen of the state are met at their own campfires and problems of the department are discussed with them in an effort to reach a solution. Printed material is placed in the hands of people throughout the state. A quarterly publication is issued. An effort is to be made to carry the subject of wild-life conservation into the schools, to secure wild-life motion-picture films. It is thought such films can be made most effective in stimulating a widespread interest in the natural resources of the state.

Game propagation has been hampered because of a lack of sufficient appropriation for the game farm. The farm is not owned by the state but is rented. This is proving an expensive proposition. Recommendations have been made for its purchase.

In 1923 the legislature extended state-wide protection to the moose for an indefinite period. Until that time it had been lawful to take each year one male antlered moose. The herd remaining in Minnesota has been crowded into the northeastern corner of the

state. There are three refuges in this section where moose were protected before state-wide protection was extended. The Superior Game Refuge of 1,250,000 acres, adjacent to the Superior National Forest, was established in 1909; the Kettle Falls Refuge, between Rainy and Kabetogama lakes, of 60,000 acres, was established in 1920, and two townships in western Koochiching County. Two small tracts in Roseau and Kittson counties were also set aside, but they do not represent the best moose country. Most of the moose hunting preceding passage of the 1923 Act was done on the outskirts of these refuges.

The state parks are by law game preserves.

The Fish and Game Commissioner is considering the designation as game refuges or sanctuaries of such tracts of land as have been acquired by sportsmen primarily for hunting purposes and from which the general public is excluded. It is believed this procedure would remove the incentive for acquiring title to hunting privileges on favored locations. The present law relating to the establishment of game refuges would have to be amended before such a plan could be followed.

If the recommendation for the establishment of a revolving fund is passed, it is the hope of the department that this fund can be used for the purposes of acquiring and maintaining state or privately owned lands for public shooting grounds and game refuges. The following refuges have been created, but they are not on state-owned land:

Atkin County: Township 51, Range 22, and parts of Townships 50 and 52, Range 22, Permanent, 38,720 acres. Townships 44 and 45, Ranges 23 and 24, Permanent, 141,440 acres. Lands east of Mille Lacs Lake, Permanent, 44,800 acres.

Anoka County: Lands along east side of Mississippi River from Minneapolis to Anoka, Permanent. Town of Grow and part of town of Anoka, Permanent. Lands between Mississippi River and Main Street, Permanent. Total acreage of above three, 42,800 acres. Lands in Township 31, Range 23, Permanent, 2,080 acres.

Belrami County: Bemidji Refuge, surrounding lake and city of Bemidji, Permanent, 12,800 acres. Addition to Bemidji Refuge, Permanent, 20,480 acres. Kelliher Refuge, Permanent, 69,120 acres. Blackduck Refuge, Permanent, 46,080 acres.

Blue Earth County: Mankato Refuge, Permanent, 5,760 acres.

Carlton County: Near Village of Carlton, Permanent, 12,160 acres. Cloquet Forest Station, Permanent, 2,600 acres.

Carver County: Lands in Watertown Township, 5 years, 2,080 acres.

Cass County: Backus Refuge, Permanent, 28,880 acres. Star Island, Permanent, 1,000 acres.

Clay County: Lands northwest of Hawley, Permanent, 26,880 acres.

Cook County: Superior Refuge, lands embracing Cook, St. Louis and Lake counties, Permanent, 1,290,000 acres.

Cottonwood County: Storden Township, Permanent, 1,200 acres.

Dakota County: River Lake and west bank of Mississippi River, Permanent, 300 acres. Minnesota River Refuge (See Hennepin County).

Dodge and Goodhue counties: Skyberg Refuge, Permanent, 10,240 acres.

Faribault County: Township 102, Range 27, Permanent, 300 acres.

Freeborn County: Bear Lake, Permanent, 1,200 acres. Albert Lea Farm, Permanent, 10,560 acres. Fountain and Albert Lea Lakes, Permanent, 15,200 acres.

Goodhue and Dodge counties: See Skyberg Refuge, Dodge County.

Hennepin County: Minnetonka Refuge, Permanent, 62,280 acres. Medicine Lake, Minnetonka Addition, Permanent, 9,600 acres. Minnesota River Refuge, along Minnesota River in Hennepin and Dakota counties, Permanent, 16,000 acres.

Houston County: SE. ¼ of NW. ¼, Section 23, Township 102, Range 6, Permanent, 40 acres. Lands in Township 102, Range 6, Sections 14, 15, 22 and 23, Permanent, 640 acres.

Hubbard County: Schoolcraft Refuge, Township 144, Range 34, Permanent, 23,040 acres.

Itasca County: Five sections in Township 55, Range 25, Permanent, 2,800 acres. Township 60, Ranges 22 and 23, Permanent, 46,080 acres. Township 60, Range 24, Permanent, 15,360 acres. Township 53, Ranges 26 and 27, 5 years, 940 acres.

Kandiyohi County: Monongalia Refuge, 16 sections west of New London, 10 years, 10,740 acres.

Kittson County: Four sections in Township 161, Range 49, Permanent, 2,560 acres. Township 161, Ranges 47 and 48, Permanent, 46,080 acres.

Koochiching County: Townships 156 and 157, Permanent, 46,080 acres.

Lake County: Castle Danger Refuge, 10 years, 5,000 acres. Drummond, tract lying between the Drummond branch and main

line of the D. & I. Railway and the Alger-Smith Railway, 10 years, 28,000 acres.

Le Sueur and Blue Earth counties: Between Kasota and Mankato, east of Minnesota River, Permanent, 7,000 acres.

Lyon County: Two and one-half sections in Township 111, Ranges 41 and 42, Permanent, 1,600 acres.

Marshall County: N. ½ of Township 155, Ranges 45, 46, 47 and 48, Permanent, 46,080 acres.

Martin County: Lands in Township 102, Range 30, Permanent, 4,800 acres. Five sections east of Fairmont, Permanent, 3,200 acres.

McLeod County: Bear Lake Refuge, Permanent, 640 acres. Lands in Township 116, Range 29, Permanent, 3,680 acres.

Meeker County: Lands surrounding Lake Ripley, Permanent, 1,500 acres.

Mille Lacs County: Twelve sections in Township 42, Range 25, Permanent, 4,400 acres. Lands between Wahkon and Isle, north of Soo Line railroad track, Permanent, 3,200 acres. Lands east of Mille Lacs Lake (See Atkin County).

Morrison County: Twenty-five sections between the Platte and Mississippi rivers, 10 years, 16,000 acres. Four sections west of Little Falls, Permanent, 1,060 acres.

Murray County: Lands near Currie, Permanent, 1,440 acres.

Nicollect County: Tract in Swan Lake, 10 years, 700 acres. Swan Lake Addition, 7 years, 50 acres. Along Minnesota River between St. Peter and Mankato, Permanent, 13,680 acres. Middle Lake, Permanent, 915 acres.

Norman County: Townships 144, 145, 146, Range 45, and half of Township 143, Range 45, Permanent, 92,160 acres.

Pennington County: Lands north of Thief River Falls, Permanent, 3,200 acres. Rocksbury and Smiley Townships, Permanent, 46,080 acres.

Pine County: About six towns between the Kettle River and the St. Croix, 5 years, 115,840 acres.

Pipestone County: Parts of Township 105, Range 44, Permanent, 1,120 acres.

Polk County: Along Red River above Crookston, Permanent, 7,040 acres. Prairie chicken refuge near Crookston, Permanent, 83,840 acres.

Ramsey County: Lands embracing Lake Johanna, Permanent, 5,000 acres.

Renville County: Four sections in Township 114, Range 34, and Township 114, Range 35, Permanent, 2,560 acres. Phare Lake in Township 116, Range 31, Permanent, 300 acres.

Rice County: Near Union Lake, Permanent, 1,660 acres.

Roseau County: Stokes and Stafford townships, Permanent, 46,080 acres.

St. Louis County: Kabetogama Peninsula, Permanent, 60,000 acres. DuPont Refuge, Township 57, Range 19, and twelve sections in Township 57, Range 20, Permanent, 30,720 acres. The Fayal, all of Township 57, Range 17, except Sections 5 and 6, Permanent, 21,760 acres. Near Village of Carlton (See Carlton County).

Todd County: Lands near Clarissa, Permanent, 1,600 acres.

Waseca County: Blooming Grove Township, Permanent, 23,360 acres.

Washington County: St. Croix, bordering the St. Croix River, Permanent, 2,400 acres.

Watonwan County: Lands around St. James Lake, Permanent, 870 acres.

Winona County: Elba Township, Sections 17, 19, 20 and 29, Permanent, 2,560 acres. Wiscoy Valley, Permanent, 8,425 acres. Gilmore Valley, Permanent, 2,580 acres. Saratoga Township, 10 years, 2,560 acres.

George W. McCullough is State Game and Fish Commissioner. His headquarters are in the Old Capitol, St. Paul.

Mississippi

Nearly every state has a state park or a state forest, but as yet Mississippi has neither. She is also one of only two states having no state officer for the administration of game laws. The enforcement of these laws is entrusted to the county wardens. However, Mississippi has made a beginning in state forest development through the creation of a state forestry department which also has authority to acquire state parks.

The state contains many areas of scenic beauty, areas which should unquestionably be preserved. While the scattered population of the state does not make the establishment of parks a matter of immediate necessity, it is always expedient to establish such areas while the beauty spots remain. Several suggestions for state park

development have been made in the past, such as the acquisition of available Federal properties, but as yet nothing has been accomplished.

With the rapid development in forestry work in two years and the interest of the commission in the establishment of state-owned areas, it should not be long before Mississippi joins the ranks of state park owners.

State Forests

Mississippi is a forest state. Practically the entire forest area of 18,700,000 acres is in private ownership. Adequate steps to promote forestry work were not taken by the state until 1924, when Governor Whitfield appointed a Reforestation Commission to make a study of the forestry situation and report to the 1926 Legislature. Following this study the State Forestry Commission was created in 1926.

The act creating the commission provides that it shall consist of the Governor, the Commissioner of Agriculture, the State Land Commissioner, and six citizens of the state who must be owners of real estate and qualified electors of the state. All appointees must have a "knowledge of and interest in the continuous production of forests and the use of forest products." The commission was authorized to appoint a state forester. Among its other duties it is required to take action necessary for the control of forest fires; and to make provisions for reforestation, for educational activities, and for the institution of technical investigations and studies in forestry.

The Governor is authorized to accept gifts of land for state park and forest purposes. These lands will be held and administered by the commission.

Mississippi is one of the few states which does not offer courses in forestry in her colleges. One of the first recommendations of the state forester was that the legislature make provision for the establishment of proper courses in the colleges and for the creation of a ranger school, thus providing men efficiently trained in forestry work.

Three forest nurseries probably will be established, one in northern Mississippi, one in the southern part of the state, and the third near Jackson. The U. S. Forest Service has promised its cooperation under authority of the Clarke-McNary Act, contributing as much as $2,000 on a fifty-fifty basis for the growth and distribution of tree seedlings.

The act requires the encouragement of forestry practice by owners of land, and this is the specific duty of the Extension Forester. The farmers own 40 per cent of the forest land of the state. This

large group of farm owners are educated and interested in forestry methods by county demonstration agents, through actual work and assistance in reforestation, and through the protection and management of woodlands. Effort so far has been centered on impressing the fact of landowners that to practice forestry means to raise, harvest and market trees as a crop. Owners of land who desire to reforest lands may pay into the State Forestry Fund the amount necessary to spend on their lands for this purpose. Ninety per cent of this fund is expended on the lands of the contributors; the remaining 10 per cent is left in the fund for the general purposes of the commission.

The work in forestry education has consisted of exhibits at fairs, field trips, and special talks before women's clubs, teachers' associations, high schools and other similar organizations. Bulletins are published, including an educational circular, and an essay contest was conducted in cooperation with the State Federation of Women's Clubs. The preparation of a forestry textbook for use in the grade schools has been undertaken.

Thirteen bills were submitted to the Governor by the commission for introduction into the 1928 Legislature. They include provisions for reforestation, creating a reforestation area; authority to acquire and dispose of property; authorizing the commission to make rules and regulations for the prevention and extinguishment of forest fires; requiring precautions by railroads along their rights-of-way to prevent forest fires; providing penalties for setting fire to woods; authorizing forest officers to make arrests; providing for the organization of fire protective areas; and directing the State Land Commissioner to furnish the commission with a list of all state lands which may be designated by the commission as state forests.

There are no national forests in Mississippi, but the state has passed an act giving its consent to the acquisition by the United States of such lands as in the opinion of the Government are needed for the establishment of such forests.

The state cooperates with the Federal Government and during 1928 will receive $33,655 for fire protection and $1,860 for farm forestry extension.

The members of the State Forestry Commission are Governor Theodore Bilbo; R. D. Moore, State Land Commissioner, Jackson; J. C. Holton, Commissioner of Agriculture, Jackson; J. B. Bishop, Vice Chairman, Pinola; T. T. Davenport, Aberdeen; J. S. Watson, Lexington; P. N. Howell, Howison; J. M. Aldrich, Michigan City; F. C. Hathorne, Hattiesburg. The commission on June 1, 1926, elected Roy L. Hogue as State Forester, and he can be reached at Jackson.

Missouri

Missouri is making provision for her people and for visitors to the state through the creation of recreational areas. Game work began a number of years ago, but state parks are a comparatively recent development. The state parks serve a twofold purpose. They provide ideal places for the propagation of game, and furnish recreational centers for thousands. As yet no state forests have been created, but as interest in forestry develops their establishment will undoubtedly follow.

Parks and Game

Missouri was the first state to develop her park and game work in unison. Interest in game conservation developed long before there was any thought of a system of state parks, since the office of game and fish warden was established in 1895. It was reorganized in 1905, followed in 1909 by the creation of the State Game and Fish Commission.

In 1919 the state park program was begun. In that year Senator Frank H. Farris, of Rolla, conceived the idea of devoting a portion of the revenue of the Game and Fish Commission to the establishment of a state park system. The legislature of that year amended the statutes relating to the commission, making it the duty of the commissioner to set apart, from the receipts of the department, to be used in the acquisition of suitable areas, not less than 25 per cent of all fees and other moneys collected in the enforcement of the game and fish laws.

The work of the department is carried on solely with money brought into the state treasury through the sale of fishing and hunting licenses. Not one dollar is received either from taxes or appropriations. The fund is used for patrol service, for the purchase, maintenance, and improvement of fish hatcheries, for state parks, the propagation of wild life in the refuges, and the restocking of the state with game.

The department consists of a number of divisions, with the Parks and Refuge Division in charge of both game work and parks. Keith McCanse is State Game and Fish Commissioner and C. D. Montieth is Chief of Parks and Refuges. The office of the department is located at 120 East High Street, Jefferson City.

Parks

Missouri is rich in state park possibilities. Most of the parks already created are in the Ozark region, where there are many

beautiful giant springs, rugged bluffs, and forest-covered hills. These springs, which are of immense volume, are a great attraction to visitors from outside the state, and with the caves and other scenic attractions are the foundation of an unusual state park system. During 1927 over 100,000 people visited the parks— among that number tourists from practically every state in the Union.

The act authorizing the Fish and Game Commission to purchase lands for parks also provides for their development through the building of lakes; for their use for the protection and propagation of game and fish; and for the purchase of game stock for planting within their confines. Game keepers and assistants may also be employed.

The right of eminent domain has been conferred on the Governor, Attorney General and Game and Fish Commissioner, and lands for state park purposes may be condemned as is done by railroad corporations for rights of way.

The funds set aside for state park work from the income of the fish and game department under the Act of 1919 were allowed to accumulate until 1925, when the legislature allotted $240,000 for the purchase of park lands. In that year eight sites were acquired, ranging in size from 12 acres to 12,868 and comprising a total area of 23,224 acres. They cost $175,988. The park system now contains twelve state parks, with a total area of 36,694 acres, purchased for $372,635.36.

Since the funds which permit of the acquisition and development of these parks come from the fishermen and hunters, the present commissioner believes the parks should be developed primarily for the use of sportsmen. Fish hatcheries have been established. Each park is a game preserve, and has been stocked with deer, wild turkey, and other game. There are ample opportunities for bathing, fishing, boating, and hiking. Well-equipped camp grounds are available. Several of the parks contain hotels. Concessions are granted for boat facilities, refreshment stands, and other purposes. Fire protection work is handled in cooperation with the Forestry Department. Revenues from concessions, camping, etc., revert to the park fund and may be reappropriated for maintenance and development. The commissioner also hopes to receive gifts of money or land which may be used for general development to provide facilities for the traveling public.

The immediate program of the commission does not contemplate the addition of more state parks, although it will undoubtedly be possible to add large areas some time in the future when funds are available. Funds now available will be utilized in the better development of the existing parks. However, the commissioner recom-

mends that the next session of the General Assembly seriously consider the expansion of the state park system in order that it may be state-wide in scope, with parks in each section of the state.

Game

There is more game in Missouri today than five years ago. Conditions as to rabbits, squirrel, quail, and fur-bearers are most satisfactory. Deer and wild turkey have been imported and released in the state parks and on farms. They are rapidly increasing. A closed season on deer extends to 1930 after which there is no provision for their protection. The commissioner recommends the approval of an open season each year of not more than three days. He also urges that, because of the diversified character of the state law, authority be given the commission to shorten the closed seasons, and to restrict bag limits, and to do this by counties.

Public support is aroused for the game work of the state through the Bureau of Public Information of the commission. It is the mission of this bureau to make an appeal to the public to support the program of conservation and the development of recreational areas. Motion pictures have been compiled. They are shown in the schools and loaned. Educational placards are printed; exhibits are installed at state and county fairs; and a monthly magazine is issued. A series of lessons have been prepared for use in the schools as an effective method of imparting to the pupils important facts bearing on the conservation of game and fish.

For game protection Missouri is divided into 36 districts. These districts are in turn divided into three groups of twelve each, each in charge of a field warden. The efforts of the field wardens and the warden force under their supervision are extended not only to the patrol and protection of game in the districts, but to securing the cooperation of the public. Through their endeavors a sentiment favorable to the enforcement of the game laws has been created.

The 1927 Missouri Legislature provided, by the passage of an auxiliary game refuge and public shooting grounds law, for the protection and propagation of game of all kinds in sanctuaries. The system was put into effect immediately and was patterned after the very successful plan adopted in Pennsylvania. The state expects to have a refuge in every deputy district before the end of 1928.

These state game refuges will be established on private lands, the hunting rights of which will be leased to the state. Leases of not less than ten years' duration will be entered into, without any rental payment by the state. Certain portions of the refuges may be designated as public shooting grounds, but public hunting must be

done under regulations of the department. Approximately 20 per cent of the acreage leased will be devoted to the sanctuary, where game will be liberated.

The auxiliary refuges have been divided into three different types. They are the type A, or big game refuge, to consist of a tract of land of not less than 5,000 acres; type B, the small game refuge, to consist of at least 1,000 acres. Type C, the migratory bird refuge, will be similar in area to that of the small game refuge.

It is the plan of the commissioner to have thirty-six game refuges in the state by the end of the year. This number will include state-owned refuges as well as leased refuges. At the present time ten auxiliary game refuges of the Class B type have been established, which will be stocked with pheasants, quail, and wild turkey. These Class B refuges are as follows:

Greene County, 1,515 acres; Newton County, 3,180 acres; Vernon County, 1,470 acres; Callaway County, 2,038 acres; Clark County, 1,261 acres; Nodaway County, 1,965 acres; Adair County, 2,094 acres; Macon County, 2,311 acres; Randolph County, 1,152 acres, and Marion County, 1,490 acres. They comprise a total area of 18,476 acres. A big game refuge, or Type A refuge, has been established in Hickory County, consisting of 5,000 acres. This area will be stocked with pheasants, wild turkey and deer.

Five of the state parks are game refuges—Franklin County Park, Franklin County; Indian Trail Park, Dent County; Deer Run Park, Reynolds County; Sam A. Baker Park, Wayne County, and Big Springs Park, Carter County.

State Forests

Forestry work in Missouri was inaugurated in September, 1925, following the enactment of a law by which the State Board of Agriculture was given jurisdiction over forestry matters and authorized to create a Department of Forestry and appoint a state forester. While the department was in the process of organization the beginning of work was made possible by the Missouri Forestry Association, created in 1921 and composed of a group of men and women interested in the advancement of forestry. During the first sixteen months of its existence the expenses of the Department of Forestry were met from a grant of $14,000 raised by the association.

Active interest in state forestry did not begin too early, since at the time of its inception almost half of the original forested area of the state had been destroyed—14,000,000 acres remained. The protection of young second growth is the chief forestry need, since most of the virgin timber of Missouri has been harvested. In the Ozark region one of the most important duties devolving on the department is the protection of the forest from fire. A state and

forest nursery is maintained at Cedar City, and forest planting is under way in other sections of the state. The department also assists owners of land with plans for improving existing stands of timber.

The state cooperates with the Federal Government, and during 1928 will receive $11,000 for fire protection and $2,000 for the distribution of forest planting stock.

No state forests have been created, and the department does not contemplate the establishment of state forests, although small areas will be set aside for experiment and demonstration.

Frederick Dunlap is State Forester and may be reached at Columbia. Mr. Dunlap also serves as Extension Forester in the Agricultural Extension Service.

Montana

With its magnificent mountain masses Montana offers scenery of unusual possibilities for the development of outdoor playgrounds. In the past there has been little interest in the creation of state parks, due probably to the vast forest domain and scant population. There is sufficient land in the state to provide a homestead of 160 acres for every man, woman and child within its boundaries. Now, however, interest is growing. The Kiwanis clubs of the state are sponsoring a plan of securing as state parks small tracts of land contiguous or adjacent to public highways of the State—a development similar to that of Oregon. A committee has been appointed to draft a bill which will be introduced at the next session of the legislature.

The extensive state forests already established offer great future opportunities for recreation, and they will be developed for such use when funds are available. One of the principles of the policy of the Montana State Forestry Department is "to preserve the landscape beauties of important recreational points in the state forests."

The splendid work of the Game Commission is resulting in again making Montana a paradise for sportsmen.

State Forests

Montana, third largest state in the Union, contains approximately 94,383,000 acres. Over 24,000,000 acres of its area is mountainous and forested. Its forests are Federal-owned, privately owned, and state-owned, with about 5,000,000 acres in private ownership 500,000 in state ownership, and the remainder belonging to the Federal Government. Practically all of these lands are open for recreational use. Private owners are very liberal in permitting the public to hunt, fish, and camp without restrictions.

A number of years ago the state suffered a considerable loss through the sale of valuable forest lands at $10 per acre, the minimum set by the legislature. Due to this loss there was a widespread demand for the creation of a state forestry department. As a result of this demand the legislature of 1909 passed an act creating the office of state forester and giving him general charge of all timberlands of the state, under the direction of the State Board of Land Commissioners. This board has the control and direction of all state lands. The state forester was also given authority to direct the protection and improvement of state parks, though so far Montana has established no parks.

Public land grants to the state, including school sections and other special grants, comprised originally over 6,000,000 acres, of which 5,000,000 acres remain under state ownership. Thousands of dollars in revenue derived from the management of the compact units formed by exchange of these lands go into the educational fund of the state. For the convenience of administration such compact forest units were formed through exchange for scattered state tracts from time to time, authority having been granted in 1911 by the legislature to select such units within the national forests agreed upon by the U. S. Forest Service to be controlled and managed as state forests. To remove an obstacle in the enabling act of the state that might have prevented the creation of such compact forest units, the United States Congress passed an act, approved February 14, 1923, authorizing the exchange of cut-over lands in state ownership for privately owned lands of like character and value in compact form for forest and recreation purposes. No state legislation, however, has been enacted to permit of such exchanges.

The enabling act and the state constitution place a minimum value on state lands of $10 per acre, a price which, as a general rule, prohibits their purchase for speculation purposes. The provision of the 1909 law that no state timber shall be sold for less than $3 per thousand feet B. M. has resulted in holding the state forests practically intact, though some of the less valuable lands have been turned back to the Government in exchange for grazing and agricultural lands having a greater value to the state.

Under an act of March 25, 1925, seven state forests were created in the Rocky Mountains of western Montana. They contain valuable stands of white pine, larch, yellow pine, spruce, Douglas fir and lodgepole pine. Many game animals are found within their borders. Although not developed for recreation, they are open to all forms of outdoor activity, such as hunting and fishing. Camping is permitted. The compact forests total 202,939 acres. In scattered state-owned forest lands there are 297,000 acres.

The bill creating the state forests also provided for their specific forest management, for the handling of timber sales and permits, for the administration of grazing, and all other uses. The state forester is directed to cooperate with forest owners and farmers in the development and protection of state and privately owned forest lands.

Forest fire legislation was revised by the 1927 Legislature giving the State Board of Land Commissioners authority to contract with organized protective agencies for the protection of state lands. Between May 1 and September 30, landowners must now make reasonable efforts to abate uncontrolled or spreading fires, which are declared a public nuisance, and no fires shall be set during the period without a burning permit.

The appropriation for forestry work during 1928 is $39,400.

Montana cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $18,708 for fire protection, $2,000 for the growing of forest planting stock, and $1,500 for the distribution of the stock by the extension service to farmers.

The State Board of Land Commissioners consists of the Governor, the Attorney General, the Secretary of State, and the Superintendent of Education. The Governor acts as chairman. Rutledge Parker is State Forester, with offices in the Forest School Building, University of Montana, Missoula.

Game

Cooperation between the sportsmen of the state and the fish and game department is largely responsible for the success of Montana's game work. A few sportsmen, realizing measures had to be taken to protect the game, endeavored to lay the foundation of a state-wide organization. In 1915 a letter was sent from the state game warden's office calling a meeting at Lewistown of all interested in this project. The office of state fish and game warden had been created in 1901. The Fish and Game Commission was created by the legislature in 1907, said commission being composed of three members. The act was approved March 8, 1907. In 1911 the legislature increased this commission to five members. The act was approved February 11, 1911.

While there was a large attendance at the meeting, great interest aroused, and an association formed, the enthusiasm did not last long and the organization died. Another meeting was called in Helena in 1920. The Montana State Sportmen's Association was formed, with a small fee for membership. The cooperation of sportsmen throughout the state was secured.

Through the efforts of the association a bill was passed by the legislature of 1921 creating a Montana Fish and Game Commission. The commission is composed of five members, appointed by the Governor, not more than three of whom may be of the same political party. They serve for four years and receive a per diem of $10 each while in actual attendance at meetings of the commission, the per diem not to exceed $400 each in any one year. Their traveling expenses also are allowed.

Under the law no person can be appointed a member of the commission unless he shall be well versed in the subject of wild life, fish and game and the requirements for their conservation and propagation. The State Fish and Game Warden, who is the administrative agent appointed by the commission, must also have special training and skill in wild life protection, conservation and management.

Expenses of the work are paid from a Fish and Game Fund, made up of fees from hunting and fishing licenses or permits, the sale of seized game or hides, fines, damages collected for violations of the law, appropriations, and sums received from any other source.

Steps have been taken to provide public shooting grounds. The policy has been adopted of acquiring shore-line areas and other tracts, since most of the desirable shooting grounds are being purchased rapidly by private shooting clubs.

The game law closes the entire state for the hunting of Rocky Mountain sheep or goats, making it a misdemeanor to shoot, kill, take, or capture these animals. The commission, however, has authority to open for limited periods any county or portion of a county for the above purposes. The same law has been passed regarding quail, ring-neck pheasants, Hungarian partridge, ptarmigan, and wild turkey.

Game preserves aggregating approximately 1,500,000 acres have been set aside by the legislature and by proclamation of the commission. Some of these preserves have been established on private land, but a majority are within the national forests. Since the national forests are said to contain about 80 per cent of the big game range within the state, it can be understood why most of the preserves lie within their boundaries.

That splendid results are obtained in the conservation of game through the preserve system is illustrated by developments on the Sun River Game Preserve. This area was created by the legislature in 1912 and includes almost 200,000 acres of rough, mountainous lands. When the preserve was established it contained about 200 head of elk, deer, mountain sheep and goats, and a few moose. In

1926 the elk had increased to between 3,900 and 4,000 head, with a smaller proportion of increase in the other animals.

The game preserves set aside by act of the legislature, are: [1]

Little St. Joe Game Preserve, in Mineral County;
Wolf Creek Game Preserve, in Lincoln County;
Spotted Bear Game Preserve, in Powell and Flathead counties;
Spring Creek Bird Preserve, in Teton County;
Snow Creek Preserve, in Garfield County, 217,728 acres;
Prior Mountain Preserve, Carbon County, 83,200 acres;
Sun River Preserve, Lewis and Clark County, 195,877 acres.
Gallatin Game Preserve, Gallatin and Park counties, 59,904 acres;
Snowy Mountain Preserve, in Fergus County, within Jefferson Forest Reserve, 108,160 acres;
Highwood National Forest Preserve, in Choteau County, within the National Forest, 45,280 acres;
Powder River Game Preserve, in Powder River County, 728,000 acres;
Flathead Lake Bird Preserve, in Flathead County;
Twin Buttes Game Preserve, in Lewis and Clark County, within the Lewis and Clark National Forest, 23,040 acres;
South Moccasin Game Preserve, in Fergus County, 19,200 acres;
Blackleaf Preserve, Teton County, 23,040 acres;
Beaverhead Fish and Game Preserve, Beaverhead County, within the Beaverhead National Forest.

The preserves created by order of the Fish and Game Commission are:

Tobacco Root Mountain Game Preserve, Madison County, within the Madison National Forest;
Cherry Creek Game Preserve, Valley County;
Judith River Game and Bird Preserve, Judith Basin County, within the Jefferson National Forest;
Ballatine Game Preserve, Yellowstone County;
Pipestone Springs Game Preserve, Jefferson County;
State Game Preserve, Flathead and Lake Counties;
State Game Preserve, Carbon County;
Stillwater Game Preserve, Flathead County;
Skalkaho Game Preserve, Powell County;
Waterloo Bird Preserve, Madison County;

[1] It is impossible to give the acreage of all these preserves, since many are not created in sections but along rivers and other irregular areas.

Little Rockies Game Preserve, Phillips County, within the Jefferson National Forest;
Brinkman Game Preserve, Liberty County;
Manhattan Game and Fish Refuge, Gallatin County;
Sullivan Game Preserve, Fergus County.

Among the game on refuge are deer, antelope, grouse, pheasant, elk, goats and moose. It is unlawful to hunt, kill or trap any of the game on the preserves.

T. N. Marlowe, Chairman, Missoula; E. A. Wilson, Livingston; G. T. Boyd, Great Falls; J. L. Kelly, Anaconda; and W. K. Moore, Billings, constitute the Fish and Game Commission. Robert H. Hill is State Game Warden, with headquarters in Helena.

Nebraska

In Nebraska the recreational situation is an interesting one. Two separate and distinct administrations are developing park areas. The State Park Board was created for the purpose of establishing an adequate state park system. Appropriations have been small and the board has been hampered seriously in its work. The four state parks it administers have all been gifts to the state and no funds have been available for the purchase of additional areas.

On the other hand, believing that the development of game work is closely allied with park creation, the Division of Game and Fish, in 1925, obtained authority from the state legislature to use surplus game license receipts amounting to $30,000 in purchasing public fishing grounds which would be developed for recreation and would furnish opportunities for fishing, bathing and camping. This movement has progressed steadily and Nebraska now has five such areas. Plans are under way for further purchases. The latter areas, however, were not purchased because of outstanding scenic beauty, but their possibilities for the conservation of game as well as for recreation were the prime considerations.

Forestry work has made little progress when contrasted with the development of recreational facilities. There is no forestry department and no state forests have been created, though a beginning has been made.

State Parks

The state park movement is a comparatively recent one. The first park board was created in 1921, but it was an honorary board having no appropriation. The activities of the board were under the control of the Department of Public Works, with the Secretary of the Department as ex-officio secretary of the board and the Gov-

ernor as chairman. With no appropriation granted there could be no accomplishments.

The first state park, the Chadron Park, was created in 1921, from a section of public school land located in northwestern Nebraska. This is a beautiful tract in the Pine Ridge region containing canyons, buttes, and forests.

Two years later, in 1923, the legislature revised the law governing the state park board. It was transferred from the Department of Public Works to the Department of Horticulture of the State University. The board consists of six members appointed by the Governor. There are two ex-officio members—the Governor, who acts as chairman, and the Chairman of the Department of Horticulture who acts as secretary. The members of the board serve without compensation, but are reimbursed for actual expenses incurred in the discharge of their official duties.

The board has authority to make rules and regulations for the administration of the property under its control, and to grant concessions for periods of not exceeding three years. It may accept gifts of property or funds for park purposes, and may acquire lands for such uses whenever funds are available. A survey of the state for park possibilities was also authorized.

The 1923 session of the legislature accepted the gifts of two tracts for park purposes—the original homestead of J. Sterling Morton, now known as Arbor Lodge; and a tract in Custer County, the Victoria Springs State Park. The act accepting the Arbor Lodge State Park carried an appropriation of $5,000 for the maintenance of the park.

In 1927, Stolley State Park, near Grand Island, was acquired as a gift from the citizens of Grand Island and Hall County.

The board has adopted no definite policy regarding the acquisition of park areas. The existing parks have been donated to the state, but no funds have been appropriated for the acquisition of land.

Receipts from concessions and other services are paid into the general fund, but are available for use of the parks. This resource will materially aid in making the parks self-supporting when they have been developed more extensively for recreation.

There are a number of proposals for interesting additions to the state's park system. Many of the proposed parks are said to be of historical rather than scenic or scientific interest and are largely a result of local desire to maintain certain sites of historic value.

A bill was introduced in the 1927 legislature providing for the purchase, for park purposes, of the fossil beds of northwestern

Nebraska. As finally passed, the bill eliminated the appropriations and directed the board to make a survey of the area and report to the next session.

A portion of an old Indian grant, an island of approximately 400 acres in the Niobrara River near its junction with the Missouri, has also been proposed. This island at the present time is the property of the village of Niobrara. It requires congressional action to turn it over to the state.

Another proposal has been made—the acquisition of a site in northeastern Nebraska, including some 160 or 200 acres of Missouri River bluff country near Ponca, Dixon County. It has also been suggested that the Scotts Bluff National Monument near Gering be turned over to the state by the Federal Government for use as a state park. This monument contains 1,893 acres and is a region of scientific and historic interest. Many famous old trails traversed by early pioneers passed over and through the monument.

Nebraska now has four state parks, with a total area of 808 acres. Appropriations for the biennium 1927-1929 were $34,000.

The board consists of Governor McMullen; C. C. Wiggans, Secretary; E. R. Purcell, Broken Bow; A. J. Weaver, Falls City; H. J. Cook, Agate; C. G. Marshall, Arlington; T. W. McCullough, Omaha; and G. D. Butterfield, Norfolk. Professor Wiggans may be reached at the Agricultural College at Lincoln.

State Forests

Only a small percentage of the total area of the state is forested and no state forests have been created. There is no state forestry department. Forestry work is under the direction of the Director of the Conservation and Survey Division of the University of Nebraska. The division was created by the legislature in 1921, and was given authority to survey the natural resources of the state; to investigate the conservation problem of the state; to assist in developing the forest resources and parks of the state; and to enter into cooperative agreements with the Federal Government for surveys and investigations.

The state cooperates with the Federal Government under the Clarke-McNary Act and, during 1928, will receive $2,000 for the distribution of forest planting stock and $1,860 for farm forestry extension.

No appropriation for forestry work is made by the state, but the Director has authority to determine the amount to be spent from the appropriations made for the division.

There is no forest fire prevention system and no laws have been passed for forest taxation.

To aid in forest work and state forestation a committee has been created consisting of six members. The committee is appointed by the Governor and serves without compensation. It consists of the following:

G. E. Condra, Director Conservation and Survey Division, Chairman; H. J. McLaughlin, Secretary State Department of Agriculture; Jay Higgins, in charge National Forest Reserves in Nebraska; W. W. Burr, Director Nebraska Agricultural Experiment Stations, Associate Dean Agricultural College, University of Nebraska; George A. Marshall, State Nurserymen's Association; W. H. Brokaw, Director Agricultural Extension University of Nebraska.

Mr. Condra is the administrative head of the forestry work. E. O. Meschmidt of the Conservation and Survey Division is State Forester, and C. W. Watkins of the Agricultural Extension Division of the Agricultural College is Extension Forester. The division is located in Lincoln.

Game

At one time game was practically extinct, due to its destruction by hunters and sportsmen. Through conservation efforts and law enforcement Nebraska is again becoming populated with game, furnishing hunting for the public at large.

Effort toward game protection began in 1901 when the Game and Fish Commission was established. In 1917 the law was revised and the Division of Game and Fish was created in the Department of Agriculture. The work of this division expanded so rapidly that in 1921 it was made a bureau of the department, in charge of a chief of bureau.

The game laws are enforced by deputy game wardens, employed on a salary basis. and special deputy game wardens who act without remuneration. Through the special deputy wardens the bureau has endeavored to create a voluntary organization to aid in supplying information regarding violations of the law.

Due to the depleted condition, for four years from 1918 spring shooting was eliminated and the game laws were drastically enforced, resulting in a rapid increase in the game birds native to the state.

In 1921 the game and fish law was completely revised to provide a more constructive policy and a more rigid enforcement of protective and conservation measures. One of the important revisions gave authority to establish deadlines around certain areas or bodies of

water for game protection. All school sections and national forest areas were declared game reserves and bird refuges, and authority was granted for the creation of other preserves when conditions warrant.

Under this authority the two divisions of the Nebraska National Forest, the Bessey and the Niobrara, were made game reserves and include 217,808 acres. The Fontanelle Reserve near Omaha contains 2,543 acres, and the game reserve near Fairbury 190 acres. These areas are not state owned.

Real progress has been made in the acquisition of state game reserves. A number of fine reserves have been set aside and stocked, and additional reserves will be established during 1928. The last legislature appropriated not to exceed $25,000 for the purchase of a game refuge of from 5,000 to 10,000 acres. This reserve must be located in Scotts Bluff, Morrill or Banner counties, and will be purchased in the county where most reasonable prices can be obtained. Another game reserve will be established on the Platte River, consisting of ten rods on each side of its banks beginning at the west line of Range 31 in Lincoln County and extending west in Keith County. This reserve will be open to hunting during the forenoon in the open season.

The state now has eighteen reserves of approximately 350,000 acres, located in different sections of the state. This includes leased reserves and those set aside by legislative act. As early as 1921 the bureau recommended that park activities be combined with its game work, since both have for their purpose recreation for the public. It was planned to use surplus fees from hunting and fishing licenses for the development of a recreation ground system. This recommendation has been carried out, and in the past three or four years lakes in the sandhill region and sandpit lakes along the Platte River have been secured. These areas have been acquired primarily to prevent all desirable fishing grounds being purchased by private interests. Shore land around the lakes has been secured and the bureau is planting trees around these lakes so that desirable camping grounds may be developed. In many of these lakes there is almost virgin fishing. Leases will be given to reliable parties who desire to establish camps for the accommodation of sportsmen. Five fishing and recreational grounds, embracing about 2,000 acres, have been purchased. Additional areas will be purchased which will be conveniently located to serve all parts of the state.

Game work has been progressing steadily in Nebraska during the past few years. Better laws have been passed and the public is more cooperative toward conservation. Among the goals set by the

department for the year 1928 are a big educational program, strict enforcement of the law, more game preserves, and the development of the recreation ground system.

The Secretary of the Department of Agriculture is H. J. McLaughlin, and Frank B. O'Connell is Chief of the Bureau of Game and Fish. They can be reached in care of the department at Lincoln.

Nevada

The provision of recreational grounds in Nevada has never met with a very great interest and there has been no concerted movement for the establishment of either state parks or forests. There is no state forestry organization, nor are there any forestry laws. Former Governor James B. Scrugham hoped to have recreational grounds and refuges turned over to the state through exchange with the Federal Government. He planned to develop them extensively for recreation, believing they would attract large numbers of people. He was particularly anxious to have the Lehman Caves National Monument transferred to the state by the Federal Government, to light the caves, and to otherwise develop it for tourist use. As yet, however, his aims have not been realized.

Game

As early as 1895 the office of the fish and oyster commissioner was established, jurisdiction being extended to game in 1907. The State Board of Fish and Game Commissioners was created in 1921, and the act was amended in 1927. The board now consists of five members, appointed by the Governor, who receive no salary and who serve at the pleasure of the Governor. The board chooses its own chairman and secretary, and has authority to appoint an executive officer and such other employees as may be necessary.

The work of the Commission is at present supported by appropriations and gifts, but it has recommended that the proceeds from the sale of fishing and hunting licenses be placed in a fish and game preservation fund to be used for the various phases of the work.

Game refuges were established first in 1923, when a bill was passed by the legislature authorizing the creation of not more than twenty-five such areas, which, however, are not state owned.

The Governor was authorized to issue a proclamation designating and setting aside these refuges, where the hunting and trapping of animals was prohibited. An appropriation of $5,000 was made to carry out the provisions of the act. A message was promptly issued by the Governor designating recreational grounds and game refuges, most of which are on the public domain and are used by permission

of the United States Departments of Agricultural and Interior. At the request of the Governor, and with the approval of the Interior Department, an Executive Order was issued on March 5, 1926, temporarily withdrawing lands in the refuges from settlement, location, sale or entry until contemplated legislation could be passed authorizing an exchange of lands owned by the State of Nevada for an equal area of the lands desired for state recreation grounds and game refuges. Congress passed such an act, but no claims as yet have been filed by the state.

The refuges are under the control of the Fish and Game Commission and are maintained by funds of the Commission. Gifts have also been received of $15,000 from the Heye Foundation, Museum of the American Indian, and $5,000 from John Armstrong Chaloner of Virginia, which were used in making excavations and in the restoration of a remarkable buried Indian community at St. Thomas.

The following state recreational grounds and refuges have been reserved:

The Jarbidge Refuge in Elko County, of 40,300 acres, largely in Humboldt National Forest;

The Humboldt Refuge, of 206,800 acres in Elko County, within the Humboldt Division of the Humboldt National Forest—modified largely along the Nevada-Oregon-Idaho state lines for antelope to 1,175,040 acres;

The Santa Rosa Refuge, of 479,720 acres in Humboldt County;

The Grant Refuge in Nye County, of approximately 377,500 acres;

The Reese River State Refuge in Nye County, of approximately 198,400 acres;

The Lehman Refuge in White Pine County of about 175,512 acres in the Nevada State Forest;

The Schell Creek Refuge, in White Pine County, totaling nearly 70,400 acres in the Nevada State Forest;

The Grant Refuge, in Lincoln County, aggregating about 25,600 acres in the Nevada State Forest;

The Washoe County Refuge;

The Clarke County Refuge, of approximately 403,200 acres;

The Lander County Refuge;

The State Refuge of antelope in White Pine County, of 552,960 acres;

The Churchill County Refuge;

The Cathedral Gulch Refuge, in Lincoln County;

The Flaming Fire Refuge, in Clark County, of approximately 5,720 acres; and

The Goose Creek Refuge, in Elko County, of approximately 107,520 acres.

While these refuges have been stocked to a certain extent the Commission recommends that further effort be made along the lines of hatching, rearing and handling of game birds and animals, with the understanding that this work be under the direct supervision of the Commission. It also recommends the opening up of the preserves and making them accessible to the public; as well as the installation of improvements which will bring these preserves to the attention of tourists as recreation places.

The members of the Commission are: Chairman, Edwin A. Rodgers, of McGill; Vice-Chairman, Robert L. Douglas, of Fallon; Secretary, Dr. James W. Gerow, of Reno; Pierre P. Garven, of Reno; and Eber M. Steninger, of Elko.

New Hampshire

In New Hampshire forestry work began as early as 1891. Excellent progress was made in the years following. The first interest in game preservation developed in 1754, although no constructive work was accomplished until 1878. While New Hampshire has only one state-owned park area, notable advance has been made in the acquisition of public recreation areas through the cooperation with state and national agencies of such organizations as the Society for the Protection of New Hampshire Forests and the Appalachian Mountain Club. The state has long been active in preserving and protecting her outdoor assets. Each phase of this development, however, remains under a different agency. A Department of Fisheries and Game administers the game work, a State Forestry Commission was created to promote forestry work, and, with the exception of the newly created Franconia Notch Park which is under the Forest Commission, each of the areas equivalent to state parks are administered by societies which hold state charters.

State Parks

New Hampshire has one state park, just established. There are a number of public reservations acquired by organizations, such as the Appalachian Mountain Club and the Society for the Protection of New Hampshire Forests. These reservations have the same use as a state park, since camping is permitted, trails are developed, and shelters are erected.

In 1925 the legislature authorized the acquisition for state park purposes of the 6,000 acres of forest land surrounding the famous stone profile made famous by Nathaniel Hawthorne, James Russell Lowell, and Daniel Webster. This area is located in the towns of Franconia and Lincoln. An option was secured at a purchase price of $400,000, running to March 1, 1928. It covers 6,000 acres in

Franconia Notch, extending seven miles along the Daniel Webster Highway through the heart of the White Mountains. Profile and Echo Lakes are included as well as the Flume, the Pool, and Lonesome Lake, located high on Cannon Mountain. The State Treasurer was authorized to issue $200,000 in bonds of the state, one-twentieth payable yearly, to provide funds for purchase. The Society for the Protection of New Hampshire forests had available $100,000 which was devoted to the purchase of this area. The $100,000 remaining to be raised was secured through private subscription—14,000 people aiding. The area has now been saved and New Hampshire has acquired her first state park. It will be under the care of the Forest Commission. It will be of immeasurable recreational value to the state. Timber on the area cannot be cut without the approval of the Governor and the Council, but, when permitted, the revenue from its sale is paid to the state treasury. All but 1,000 acres surrounding the flume was deeded to the state. This property will be held by the society for operation and administration for twenty years, and at the end of that time will be deeded to the state.

The Society for the Protection of New Hampshire Forests was given charter powers by the state in 1901, which enabled it to hold forest lands as public trusts. Twelve reservations aggregating 3,338 acres have been acquired—the largest the Mount Sunapee Reservation of 873 acres. A number of these tracts are developed for recreational use. They are mostly areas of scenic beauty and historic interest.

The reservations held in trust are as follows:

Mount Sunapee, Sunapee, 873 acres.
Lost River, Woodstock, 734 acres.
Roadside Pines, Tamworth, 12 acres.
Masonian Reservation, Dublin and Jaffrey, 650 acres.
Primeval Pine Trees, Sutton, 5 acres.
Derby Woods, Dublin, Mount Monadnock, 125 acres.
Royal Arch, Springfield, 35 acres.
Cathedral Woods, Conway, 10 acres.
Beaver Meadows, Woodstock, 152 acres.
Frank West Rollins Memorial, Warner, Mount Kearsarge, 521 acres.
Richard M. Colgate Memorial, Sunapee, 75 acres.
Hillside adjoining Royal Arch, Springfield, 40 acres.
City Hill, Nelson, 11 acres.

The officers of the Society for the Protection of New Hampshire Forests are: Allen Hollis, president, Concord; Edgar C. Hirst, sec-

retary, Concord; James J. Storrow, jr., treasurer; Philip W. Ayres, forester. Headquarters are at 4 Joy St., Boston.

The Appalachian Mountain Club, organized in 1875, was also given authority to acquire forest lands as public trusts. It holds properties in three States—Maine, New Hampshire and Massachussetts. In New Hampshire it has thirteen parks with a total area of 677 acres. Ten of these areas are open to the public, as follows:

Lead Mine Bridge, Shelburne, 37 acres.
Snyder Brook, Randolph, 36 acres.
Joseph Story Fay, Woodstock, 150 acres.
Farrar, Pack Monadnock Temple, 4 acres.
South Baldface, Chatham, 10 acres.
Kearsarge (Pequawket), Chatham, 10 acres.
Rhododendron, Fitzwilliam, 300 acres.
Sky Pond, New Hampton, 100 acres.
Walter R. Davis Memorial, Jackson, 30 acres.
Mount Madison in the Presidential Range.

Trails and several open shelters have been built in these areas. Lodging is available in several during the summer. George A. Rust is president of the Appalachian Mountain Club, and can be reached at 5 Joy St., Boston.

Forests

With a total land area of 5,646,000 acres, New Hampshire still has 4,434,793 acres in forest land. Of this area only 11 per cent is owned by the Federal and state governments, towns, societies and public institutions; approximately 21 per cent is owned by corporations and about 68 per cent is owned by individuals. About half of the forested lands owned by individuals are farm forests. These individual owners are doing a great deal to improve and build up the forests in New Hampshire.

Interest in constructive action for the protection of the state's forests began in 1881, when the first forestry commission was organized. This commission was made permanent in 1893. The legislature, in 1909, authorized the appointment by the Governor of the present State Forestry Commission, and made provision in that year for the employment of a forester.

New Hampshire has been particularly successful in the protection of her forests from fire. An average of only one-tenth of 1 per cent is burned over annually. In this connection an interesting development is the organization of the New Hampshire Timberland Owners Association in 1911, which now has a membership representing the ownership of over 732,848 acres. These members pay

one cent per acre for protection, and from the proceeds of this fund patrolmen are employed during the entire fire season.

Exemption from taxes may be obtained on a 100-acre lot of woodland if it promises a final production of not less than 25,000 feet per acre, and the value of the growth alone does not exceed on the average of $25 per acre. The value of the forest trees is not included in this assessment. When cut, the timber is taxed at the same rate and value as other wood timber.

Another important law was invoked to encourage the planting of forests. An owner of land not exceeding $25 per acre in value and planted with at least 700 softwood trees may receive the following rebate of taxes: 90 per cent the first 10 years after land has been planted; 80 per cent the second 10 years after land has been planted; 50 per cent the third 10 years after land has been planted.

New Hampshire has established 56 state forests with a total area of about 2,800 acres. These forests range in area from 3 acres to 5,925 acres in the Crawford Notch State Forest. Many of these state forests have no recreational development. On the other hand, three have been extensively developed, particularly for public camping. House cabins located on the Theodore Roosevelt Highway are available in the Crawford Notch State Forest. A concessionaire has built a restaurant and sleeping cabins on the opposite side of this highway. Charges are regulated and improvement and construction work is done with the approval of the Forestry Commission. There are free camping sites on the state reservations, but the building of permanent camps is regulated by lease, approximately $10 per year being charged. Shelters, running water, and other facilities are available. All income from the state reservations goes into a special fund in the state treasury and is used for the improvement of the forests.

Franconia Notch including the famous profile, "Old Man of the Mountains," and Echo and Profile lakes, with about 5,000 acres of land, has just been acquired by state appropriation and gifts as a forest reservation and memorial park. Free camping places are provided.

The state forests have been acquired through gift and purchase. To date appropriation is the only source of funds for purchase. Bond issues are favored by the State Forester, who believes as much land as possible should be acquired before prices become too exorbitant. Although the commission has authority to condemn land, this method is not favored.

New Hampshire has been fortunate in receiving gifts of land for state forests. On one small reservation people living adjacent

to the forest act as caretakers without pay. On the Monadnock Reservation, a memorial road to a camping and parking place was built, and running water and shelters were provided through the further aid of one of the donors of the area.

Good roads have been built in a number of the areas, and trails have been constructed which provide opportunities for enjoyment for hikers.

The state appropriation for forestry work in 1928 is $76,000.

New Hampshire cooperates with the Federal Government under the Clarke-McNary Act, and, during 1928, will receive $13,286 for forest fire protection, $2,000 for the distribution of forest planting stock, and $1,980 for farm forestry extension.

The members of the State Forestry Commission are: W. R. Brown, Berlin; B. K. Ayers, Concord, and J. M. Corless, Manchester. John H. Foster, is State Forester. His headquarters are in Concord.

Game

The first steps for the preservation of game in New Hampshire were taken as far back as 1754. Little was accomplished, however, and all laws relating to game protection were repealed in 1823. The first constructive work occurred in 1878 when the first commission, which was created in 1865, was reorganized and a Board of Fish and Game Commissioners established. This board was composed of three Commissioners appointed by the Governor and the Council. In 1913 another reorganization followed and a Department of Fisheries and Game was established with a Commissioner at its head.

The work of the board is supported through a fish and game fund made up of receipts from the sale of licenses and from fines and forfeitures. During 1927 the receipts amounted to more than $180,000.

The Commissioner believes the future of game is dependent upon provisions made for breeding. As a result of the attempts of other states to raise game in captivity, New Hampshire has concluded better results are obtained through the refuge system where game is set apart in suitable areas, and may not be shot nor molested at any time. The establishment in each county of at least one game refuge of from 1,500 to 5,000 acres is recommended. An area surrounding each refuge will be set aside, on which free shooting can be guaranteed during the open season. The department recommends that authority be granted by the legislature to accept gifts of land for refuges, since many such gifts would undoubtedly be made.

There are four sanctuaries in New Hampshire, the first of which was set aside in 1922 followed by the creation during the next three years of three additional sanctuaries. These areas are all policed by regularly employed game keepers.

They are as follows:

Name	County	Area	Date created
York Pond Sanctuary	Kilkenney	1,920 acres	1926
Wild River Sanctuary	Gorham	3,140 acres	1926
Hubbard Brook Sanctuary	Woodstock	1,900 acres	1927
Pisgah Mountain Sanctuary	Fitzwilliam	Under construction	

There are four private sanctuaries which are largely protected by district wardens or patrolled by deputy wardens hired by the owners of the land.

The state maintains two game farms. Pheasants, rabbits, ducks and other varieties of game are bred and are used to stock sections where game has been shot out and to supply stock for the sanctuaries.

The game situation is most satisfactory. Deer and fox are rapidly increasing. The partridge has been rather scarce for a number of years, but is in no danger of extermination. The ruffed grouse is not on the increase, due probably to the vermin infection. It is probable that the condition of this bird will result in either shortening the season on it or closing it altogether. The last legislature gave the Governor and Council authority to close any fishing, shooting, or trapping season in the case of emergency on notice and a public hearing.

Mott L. Bartlett is Commissioner of the Department and James P. Hallinan is Executive Secretary. The headquarters are in Concord.

New Jersey

New Jersey has a variety of areas which provide recreational opportunities. The state parks are well developed and are examples of the state's best scenic features. Their administration, however, is divided between the Department of Conservation and Development and separate commissions. State forests are administered by a division of the Department of Conservation and Development. Game work is under a Board of Fish and Game Commissioners created for that purpose.

The present Department of Conservation and Development was created in 1915, when the Board of Forest Park Reservation Commissioners, the State Geological Survey, and other individual park commissions were merged in one body. It has authority to acquire areas for park and forest purposes through purchase, gift, and con-

demnation. These areas are administered by a division of parks and forests.

There are also two excellent county developments in the state which provide great recreational opportunity for the people in Essex and Union counties. The project in Essex County originated in 1894, when a commission was appointed by the Boards of Trade of Newark and Orange to consider the advisability of establishing a park system. Union County followed with similar action in 1921. These parks afford opportunities for canoeing, skating, camping, and a wide variety of recreation. They have been acquired through gift from individuals, corporations, and townships, and through purchase made by bond issues. County park commissions have been organized in Camden and Passaic counties and are at work for the adoption of county park systems. Similar plans are under discussion in Bergen County.

State Parks

The state parks of New Jersey are under several administrations. Three parks—the Hacklebarney, Swartswood and Washington Crossing—are under the administration of the Department of Conservation and Development. High Point State Park is under the High Point Park Commission, and the New Jersey section of the Palisades Interstate Park is administered by the Palisades Interstate Park Commission, which has headquarters in New York City.

In 1927 an act was passed by the legislature authorizing the several boards of commissioners administering state parks to receive contributions, or bequest moneys, or gifts of property for state park purposes. These Commissioners were also given authority to use the income from such gifts, sale of property, or contributions for the maintenance of the parks, the development of camp sites, lighting systems, and other undertakings. The commissions are left entirely free to reject any gifts which they consider undesirable.

Department of Conservation and Development

The Washington Crossing State Park project was begun in 1910 under a special commission appointed for this purpose. The administration of the park area and its development was turned over to the Department of Conservation and Development in 1915. It has since been enlarged and its development largely completed. Swartswood Park was acquired by the Department of Conservation and Development under special appropriation in 1915. This was followed in 1923 by the addition of Hacklebarney Park, which was donated to the state by Adolph Boire, of Chester.

An additional recreational opportunity for thousands of vacationists and summer residents will be provided through the purchase by the State of the private channel and landing at the lower end of Lake Hopatcong. This is the principal entrance to the largest body of water in the state. An appropriation of $20,000 was made for this purpose.

An act passed in 1927 authorized the Department of Conservation and Development to make a survey of the state to determine the areas suitable for state park acquisition. It is directed to give consideration to their scenic, historic, recreational, and other special features. Upon completion of the survey the board is to make a report to the legislature, and from time to time recommend the establishment of such state parks as it deems advisable. No appropriation was made for this work and consequently it was impossible for the department to make definite progress. An appropriation of $5,000 for this purpose was requested of the 1928 legislature with the hope that the work could be begun during that calendar year.

In 1925 a bill was passed by the assembly providing for the establishment as a state park of lands bordering on the Atlantic Ocean, thus preserving the natural scenery and sand dunes of the New Jersey coast. A stretch of undeveloped sand dunes and beach eight miles long, known as Island Beach, was recommended by the department. Hon. George Silzer, at that time Governor of the State, urged the acquisition of such a park in messages to the legislature.

The Board of Commerce and Navigation was requested to study the problem and appointed a commitee of investigation. The committee reported before the close of the 1925 session and introduced a bill which passed the senate but was defeated in the house. It was reintroduced in 1926, but was amended to place the custody of any park acquired in the Department of Conservation and Development, and gave the department the choice of sites along the seacoast. This bill became a law. The department has made a thorough study of possible areas along the coast. In 1927 it requested an appropriation of $500,000 for the purchase of land for a seashore park. No appropriation was made and the request was not repeated the following year because the department seriously questioned whether there is the same necessity for setting aside parts of the beach as for preserving other areas of the state, since the beach fronts are so easily accessible to the metropolitan population, and with few exceptions are available to the public under public ownership.

An appropriation of $33,692 was made for the year 1928 for state park work under the Department of Conversation and Development.

C. P. Wilber is in charge of the state parks under the Department of Conservation and Development.

The High Point Park

In 1922 an area of mountain, forest and farm lands on the north end of Kittatiny Range, comprising 10,600 acres, was donated to the state by Colonel and Mrs. Anthony R. Kuser, of Bernardsville. This area includes High Point, 1,823 feet high, and Lake Morcia, the highest lake in the state. The park had been originally developed as a private preserve by Colonel Kuser, and included a deer range, several mountain farms, ponds, lakes, and waterfalls, as well as the headwaters of Big and Little Flat brook.

For the first few years after its creation the park could not be adequately administered because of lack of funds. In 1925 the legislature appropriated $70,000 for development. Roads have been improved and extended, a bathing beach has been built on Lake Marcia, and shelter houses and sanitary facilities have been installed. Future plans for the park include the development of several types of camps—group, health, tourist, and individual camps. A golf course will be constructed. Permits will be required for individual camps. It is planned to build thirty miles of park drives.

This park, 70 miles from the most populous center in the world, should be of great service. It will eventually be linked with the extensive park system of New York through a system of park highways.

The park is administered by a commission consisting of Wayne Dumont, of Paterson, president; Dr. J. F. Hagerty, Newark, vice-president; Albert Payson Terhune, Pompton Lakes; Gen. William C. Heppenheimer, Jersey City; S. F. Quince, Sussex, and John J. Stanton, of Sussex, who is executive secretary of the Commission.

The Palisades Interstate Park

The section of the Palisades Interstate Park which lies in New Jersey is the original part of this great interstate park. Its acquisition began in 1900, due to a public demand to save from defacement the splendid cliffs on the west side of the Hudson from Edgewater to the New York boundary line. Approximately 97 per cent of the entire park area is in New York State and expenditures for acquisition and development have been divided between New York and New Jersey in the same proportion.

The New Jersey section consists of 1,000 acres, acquired through gift and purchase. Trails and roads have been built. Camping and bath-house facilities are available. There are six bathing beaches in this section. Refreshment stands are operated at many places throughout the park. The park has several public docks and is easily accessible by water.

The park is administered by the Commissioners of the Palisades Interstate Park. The New Jersey Commission and the New York Commission were each incorporated in 1900. Under the statutes of each state the commissioners consist of ten members. Five are required to be citizens and residents of New York and five of New Jersey. It is the intent of the statutes that the personnel of the two organizations be identical and that the commissioners work in unison.

The members of the commission are: J. Du Pratt White, Nyack, N. Y.; Franklin W. Hopkins, Alpine, N. J.; William H. Porter, New York, N. Y.; Edward L. Partridge, Cornwall, N. Y.; Frederick C. Sutro, Basking Ridge, N. J.; Charles Whiting Baker, Montclair, N. J.; W. Averell Harriman, New York, N. Y.; George W. Perkins, Jr., Cold Spring, N. Y.; George T. Smith, Jersey City, N. J. Major W. A. Welch is general manager of the entire Palisades Interstate Park.

Forestry

The formulation of a forest policy for New Jersey began in 1905, when the Forest Park Reservation Committee was created. This commission purchased the first land for state forests. The Bass River State Forest in Burlington County was established in 1905, followed, in 1907, by the establishment of the Stokes State Forest in Sussex County. The original area of six of the forests the state now owns was secured prior to 1915, when the present department of conservation was created. These forests have constantly increased in size under the present administration and one new area has been established. Forestry work is now under the Division of Forests and Parks of the Department of Conservation. The department has authority to acquire and develop forest reserves and state parks.

The forest authorities believe public ownership of a portion of the forest area of the state is necessary under a wise forest policy. The department has adopted a program calling for the acquisition of at least 10 per cent of the total forested land of the state, or a minimum state-owned forest area of 200,000 acres. These forests will be valuable to develop wild and backward sections of the state, thus reclaiming idle land; to grow a portion of the state timber

supply necessary to the welfare of the state; as demonstration areas to instruct woodland owners in the best methods of growing, protecting and harvesting timber crops; and to provide outdoor recreation for the people of the state.

The state now has state forests with a total area of 21,781 acres. They contain no virgin timber. There is practically no virgin forest in the state and the few areas which exist are on private holdings.

Under the methods followed in New Jersey the forest land is constantly improving in quality, since only timber that is mature or inferior is cut. The state forests are constantly producing larger and more valuable timber crops. When timber is cut immediate provision is made for the growth of the best species suitable to the locality either through natural reproduction or planting.

The state forests are partially self-supporting through proceeds from the sale of wood products. As additional areas are acquired the department believes they will become entirely self-supporting, particularly if set aside in blocks of sufficient size to permit efficient administration. An annual income of from $500,000 to $1,000,000 from 200,000 acres of state forests is predicted.

All lands in the state forests have been acquired through legislative appropriation. Revenue from their administration and utilization is retained in a special fund for use in their further development. The amount of the income which may be used in any given year is specified by the legislative appropriation bill. The largest appropriation which has been made by the state for forest land acquisition was the sum of $100,000 granted by the 1927 session of the assembly. This appropriation will permit of a very material increase in the areas of state forests.

As funds are available the state forests are being developed to the fullest extent for public recreation. The first real advance in this respect was made by an appropriation of $5,000 for the installation of recreational facilities during 1928. Some work has been accomplished. Remote regions are accessible through the construction of trails and roads. Transient camp sites are available in clearings and on good roads. There is no charge for their use, but application for a permit must be made to the local officer in charge of the state forest. Permits are good for one week, with the privilege of renewal if the site is not required to accommodate other applicants. A limited number of permanent camp sites may be leased by individuals or organizations for a maximum period of ten years, with the privilege of renewal. The minimum charge for such sites is $10 per year. Camp houses and other permanent improvements may be erected by the lessee for his exclusive use.

The number of these permanent sites will be increased as the total area owned grows. At each transient camp site sanitary provisions have been made and fireplaces have been provided. Water is available, and in some instances the camps are located on small streams where bathing is permitted. The many miles of streams in the forests provide excellent fishing, which is maintained through constant stocking by the State Fish and Game Commission. Excellent hunting is available for deer and various kinds of small game, including ruffed grouse, gray squirrels, rabbits, and small fur-bearing animals.

The largest project for recreational use is a camp installed by the Montclair Girl Scouts' Council on the Stokes State Forest. To make a lake available this organization has built, at its own expense, a dam costing approximately $10,000. Under the agreement permitting the building of this dam, the department has leased to the council 15 or 20 acres adjoining the lake for a period of 25 years. On this site the organization has constructed a handsome log assembly and dining hall, an infirmary, and several other permanent buildings. A large tent colony is set up for occupation by the girls during the summer. This forest has the largest recreational development of any areas under the forestry division.

A program for the acquisition of forest lands has been adopted by the Department of Conservation and Development, which, if put into operation, will provide an adequate area of wild land for public use. At least 200,000 acres of state forests will be reserved. During the 1928 legislature a bill was introduced in the house providing for a one-quarter mill tax on each dollar of real and personal property for three years, money derived from this tax to be placed in a forest reservation fund. Under plans outlined in this program one great wilderness area will be provided in each of the major sections of the state purchased from money in this fund. In north Jersey one large area of 50,000 acres or more is proposed, with several smaller areas of 5,000 acres or more. In south Jersey one forest will contain from 50,000 to 100,000 acres, with a number of smaller ones of 5,000 acres or more. These smaller areas will be of sufficient size to form profitable administrative units and will supply areas near by and easily accessible to all parts of the state. The bill was not acted upon by the assembly, but will be presented again in 1929. If this program is carried out New Jersey will not only build up a permanent forest industry but will add immeasurably to the opportunities of her citizens for wholesome outdoor pleasures.

The total appropriation for forestry work for the year 1928 is $313,775.

The state cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $10,854 for forest fire protection, $2,000 for the distribution of forest planting stock, and $1,881 for farm forest extension.

Dr. Henry B. Kummel is Director of the Department of Conservation and Development. C. P. Wilber is State Forester and Chief of the Division of Forests and Parks. The headquarters of the department are in Trenton.

Game

Although New Jersey is one of the smallest and most densely populated states it still abounds in wild life. Definite protection of this great asset began in 1894, when the jurisdiction of the commissioners of fisheries was extended to game. In 1895 the Board of Fish and Game Commissioners was established. This board was reorganized in 1907 and 1917. It is now composed of seven members appointed by the Governor, who serve without salary. The executive officer of the board is the secretary.

The work of the board is maintained from receipts for licenses and penalties. No appropriation is made from the state funds. In this way the expenses are borne by those who receive direct benefits from the restocking of waters and the protection of wild life. When this work first began the state made direct appropriation from the state funds, but this method was found unsatisfactory.

At the head of the warden service is a protector with two assistants. The game laws are enforced by the fish and game wardens under the direction of the protector. The wardens have authority to make arrests. All wardens of New Jersey receive salaries and are under the state civil service. Educational work is done by the board through publicity. Wild life photographs and news stories are published in newspapers and magazines, moving pictures are shown before clubs and schools and exhibits of the department's fish and game have been made at fairs and expositions. The commissioners, wardens and other representatives of the department at times address clubs and schools on fish and game matters. This educational work has helped in creating the growing interest in hunting and fishing.

The board has authority to acquire game refuges both through lease and by purchase. It may also accept gifts of land for this purpose. In 1925 a tract of 90 acres in Hamilton Township, Mercer County, was donated to the state by Dr. John S. Van Nest. This property is the first state-owned game refuge and may be used later for the propagation of game birds. Two game farms have been established, one of 538 acres at Forked River in Ocean County, the

other, the Rockport Game Farm at Hackettstown, Warren County, containing 222 acres and costing $5,500. Use of a small section of Morris Canal, which is within the boundaries of this latter area, was secured later.

The following preserves have been established through lease from the owners of the land:

Buckwood Park, three townships, Warren County, under lease since 1916, 5,000 acres.

D. P. Earl, Robert Bevans farm, Bevans Township, Sussex County, 1926 lease, 280 acres.

Trenton Boy Scouts, Copper Mine Tract, Pahaquarry Township, Warren County, 1925 lease, 1,500 acres.

Morris Kinney, owner of Stillwater estate, P. O. Butler, N. J., 1926 lease, 5,000 acres.

No hunting is permitted on these refuges. Deer, ruffed grouse and squirrel are the principal game on refuges.

The state parks and forests of New Jersey are stocked by the board. The parks are game preserves and no hunting is permitted. The forests are open to hunting and fishing under the restrictions of the fish and game laws. Among the game on these areas are rabbits, deer, fox, coon, squirrel, skunk, mink, muskrat, quail, weasel, grouse and pheasant.

The members of the Board of Fish and Game Commissioner are: H. J. Burlington, Montvale, president; Charles F. Hunter, Palisades, vice-president; Lewis Spinks, Jersey City, treasurer; George C. Warren, Jr., Summit, and J. R. Hensler, Toms River. Walter H. Fell is secretary. The office of the board is in the State House at Trenton.

New Mexico

Nearly half of the area of the state is in national forests and monuments, Indian and other reservations, or embraced in the public domain. This fact probably accounts in a measure for the present lack of laws regarding the development of state parks and forests. There is, however, a growing interest in the preservation of the state's resources, since there have been suggestions from time to time for the creation of a state conservation commission, which would have charge of the administration and development of parks and other outdoor activities. Development of hunting under state supervision with the sale of hunting licenses has been a factor in the state's development for a number of years.

State Forests

There is no state forest department. The only legislation ever passed is found in the laws of 1921 and 1923 and relates to the protection of forests from fire and to cutting and logging state-owned lands to conserve the young timber and promote forest growth. All lands owned by the state are under the direct supervision and control of the Commissioner of Public Lands.

New Mexico owns forest lands intermingled with national forests and privately owned land in different localities aggregating 250,000 acres. Effort has been made toward maintaining these lands as state forests, but it has been confined to the protection of the forest growth, to the leasing of the lands for grazing and agricultural purposes and to the sale of timber. Title is held to a large acreage within the Lincoln National Forest, acquired prior to the time of the creation of the forest, but it has little recreational use.

The state-owned forest lands are protected from fire through a cooperative arrangement with the U. S. Forest Service. The state pays a stated sum to the Forest Service each year, which is used for expenses of fire patrol and in the extinguishing of fires that occur.

The sale of timber on state-owned land is also supervised by the U. S. Forest Service, the state paying the Forest Service for such supervision. This is a new policy adopted by the present Commissioner of Public Lands, who believes it will result in better protection of the cut-over areas and save adjacent forest lands from being denuded and exposed to destruction of the timber by fires which often follow logging operations.

New Mexico cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $1,826 for fire protection work.

The Commissioner of Public Lands is B. F. Pankey, whose headquarters are in Santa Fe.

Game

From 1903 until 1921 fish and game work was administered solely by a game warden appointed by the Governor. For several years prior to 1921 the organized sportsmen of the state had endeavored to have legislation enacted placing the division in the hands of a nonpolitical commission. As a result of their efforts a bill was passed by the legislature in that year establishing the commission. It provides for the appointment by the Governor of three commissioners to serve for terms of six years, not more than two of whom shall belong to the same political party.

At the first meeting of the Commission a broad general policy was adopted. Many of these first regulations are still in force. The

commission has authority to shorten or close seasons to avoid the depletion of game or to protect game, to create and maintain game refuges, to close fishing streams, and "to adopt resolutions on points not covered by law." A game warden is appointed by the commission.

The conservation of game is becoming an integral part of the state's affairs. Under an advanced policy and with an adequate system of refuges the game of the state is safe from extermination. A large majority of the 58 refuges in New Mexico are within national forests, and have the benefit of Forest Service protection. An important policy of the Commission is that the size of a refuge should be reduced temporarily when there is a surplus of game.

The refuges are as follows:

Name of refuge	County	Area (acres)
1. Alameda Bridge	Bernalillo	256
2. Alamo	Otero	15,230
3. Andres Mountain	Dona Ana	.....
4. Animas	Sierra-Grant	9,600
5. Apache	Catron	40,000
6. Atarque	San Miguel	66,700
7. Barelas Bridge	Bernalillo	256
8. Belen Bridge	Valencia	256
9. Bernalillo Bridge	Sandoval	256
10. Big Hatchet	Hildago	95,000
11. Black Canyon	Grant	16,000
12. Black Range	Sierra-Catron	34,000
13. Bonito	Lincoln	.....
14. Buffalo Valley	Chaves	2,400
15. Bullard Peak	Grant	16,000
16. Burro Mountain	Grant	9,600
17. Canada Ojitos	Rio Arriba	23,680
18. Carlsbad Project	Eddy	64,000
19. Chupadera	Socorro	81,339
20. Cienega	Santa Fe	3,200
21. Cochita	Sandoval	16,320
22. Cochita Bridge	Sandoval	256
23. Council Rock	Socorro	21,500
24. Crosby Mountain	Catron	18,700
25. Datil	Catron	23,200
26. Double Springs	Catron	50,000
27. Dry Cimarron	Union	45,000
28. Eagle Peak	Catron	36,000
29. Elephant Butte	Sierra-Socorro	40,080
30. El Porvernir	San Miguel	35,000
31. El Rito	Rio Arriba	33,000
32. Escondido	Socorro	.....
33. Field Station	Quay	320
35. Gallinas	Lincoln	12,800
36. Guadalupe	Eddy	23,000
37. Hall's Peak	Mora	16,640
38. Hatch	Dona Ana	11,520
39. Hondo	Chavez	46,400
40. Indian Creek	Hildago	11,500
41. Isletta Bridge	Bernalillo	256

	Name of refuge	County	Area (acres)
42.	Jornado	Dona Ana	192,000
43.	Laguna Seca	Rio Arriba	26,000
44.	La Joya	Socorro	.....
45.	Lake Avalon	Eddy	.....
46.	Lake McMillan	Eddy	.....
47.	Lake No. 2	Colfax	300
48.	Lake No. 20	Colfax	67
49.	La Plata	San Juan	3,200
50.	Las Lomitos	Socorro	.....
51.	Little Dog Canyon	Otero	25,000
52.	Los Lunas Bridge	Valencia	256
53.	Magdalena	Socorro	24,800
54.	Mangas	Catron	23,600
55.	Manzano	Torrence	34,714
56.	Mayberry	Catron	20,000
57.	Miller	Valencia-McKinley	11,929
58.	Milnesand	Roosevelt	10,240
59.	Mogollon	Catron	38,000
60.	Mt. Sedgwick	Valencia	22,581
61.	Mt. Taylor	Valencia	20,285
62.	Mt. Whittington	Socorro	33,000
63.	N. Capitan	Lincoln	5,120
64.	N. Caprock	Chaves	.....
65.	North Lake	Socorro	39,680
66.	Organ Mountain	Dona Ana	51,200
67.	Pajarito	Sandoval	26,200
68.	Pecos	San Miguel	16,860
69.	Pedernal	Sandoval	11,520
70.	Peloncillo	Hildago	6,720
71.	Peninsula	San Juan	1,540
72.	Pichacho	Dona Ana	640
73.	Poinente Canyon	San Miguel	15,000
74.	Rio Oso	Rio Arriba	.....
75.	Ruidoso	Lincoln	21,120
76.	Salt Lake	Moro	300
77.	Sandia	Bernalillo	60,422
78.	San Felipe Bridge	Sandoval	256
79.	San Mateo	Socorro	21,800
80.	San Simon	Lea-Eddy	35,000
81.	Santa Cruz	Santa Fe	.....
82.	Santa Fe	Santa Fe	38,400
83.	Sapello	Grant	9,000
84.	Senorito	Sandoval	22,400
85.	Socorro Bridge	Socorro	256
86.	S. Caprock	Chaves	.....
87.	Staked Plains	Lea	25,600
88.	Tequesquite	Harding	44,000
89.	Tunnel Springs	Socorro	.....
90.	Turkey Mountain	Mora	30,000
91.	Tusas Peak	Rio Arriba	20,000
92.	V Cross T Lake	Catron	720
93.	Vermijo Park	Colfax	15,000
94.	White Creek	Catron	22,400
95.	White Mountain	Lincoln	5,100
96.	Zuni	Catron-McKinley	.....
97.	Sacaton	Luna	.....
98.	Magote	Mora	.....
99.	Flor del Valle	Dona Ana	.....
100.	Barr	Bernalillo	.....

Among the game on refuge, deer, turkey, bear and grouse predominate, with antelope, sheep and quail. The establishment of pending refuges will add 242,320 acres additional should present plans be carried out.

The members of the Commission are Charles Proebstel, chairman, Santa Fe; K. J. Baldridge, of Albuquerque, and W. A. Losey, of Hagerman. E. L. Perry is the Game and Fish Warden, and the office is located in Santa Fe.

New York

New York not only ranks among the foremost states in the development of natural recreational resources, including parks, forests and game preserves, but was one of the first states to begin this work. Her leadership has been maintained throughout the years since she has the largest acreage and number of preserves in state parks, forests or similar areas of any state in the country. This leadership is in a measure due to the wealth of the state and the variety of opportunity through the availability of scenic and recreational resources, including seacoast, lakes, rivers, forests and mountains. It is also a result of the great need of the congested metropolitan districts of the state for large, unrestricted reserves in which the pleasure of outdoor play may be enjoyed.

New York has received more gifts of money and land toward its park and forest system than any other state, such gifts being well in excess of ten million dollars.

In 1885 the State Forest Commission was created to administer the Adirondack state lands. This Commission in 1895 was merged in a Fisheries, Game and Forest Commission established in that year. The name of the Fisheries, Game and Forest Commission was changed to the Forest, Fish and Game Commission in 1900. This latter commission in 1911 was succeeded by the Conservation Commission, which, under the reorganization act of 1927, became the Department of Conservation. The department is under the direct charge of a commissioner appointed by the Governor with the advice and consent of the senate. Under its jurisdiction there are divisions of lands and forests, fish and game, water power and control, the Saratoga Springs reservation, and the division of parks. Each is under the direct charge of an officer who is responsible for their work.

Alexander Macdonald is Commissioner of the Department of Conservation, which has headquarters in Albany.

State Parks

As far back as 1820 Governor De Witt Clinton urged that the state legislature take action to preserve the Adirondack forest. It was his purpose to conserve this forest to maintain a supply of water for the Erie Canal, which was then coming into service, not for the preservation of its trees. This entire mountain region was at one time owned by the state, but the land was sold at low prices for various projects, reverting to the state when these projects failed.

The Adirondack land had been used for hunting, fishing, hiking and canoeing for many years. In 1883 its preservation was again suggested. Governor Ezra Cornell urged that a law be enacted prohibiting the further sale of the land. A commission was appointed to study this proposal, and, as a result, the State Forest Commisison was created in 1885, and was given custody of the state lands in the Adirondacks. In the same year the Niagara Falls Reservation was established. The preservation of other scenic and historic spots followed during the next fifteen years. In 1900 the first contribution to save the Palisades was made by J. Pierpont Morgan. The beginning of the establishment of the Palisades Interstate Park resulted in a widespread interest throughout the state in the creation of such preserves.

A state park bond issue providing for $2,500,000 was passed in 1910. Another state park bond issue for $10,000,000 passed the legislature and was approved by the voters in 1916. Of this bond issue $7,500,000 was for the acquisition of lands within the forest reserve for state park purposes, and $2,500,000 was for the acquisition of land to extend the Palisades Interstate Park. In 1922 the final amount of this bond issue was appropriated for the extension of the forest preserve.

Up to this time there had been no conscious effort to develop a unified state park program. Several years before 1922, largely due to the interest of the late George W. Perkins, then president of the Palisades Interstate Park Commission, a committee was formed by the State Reconstruction Commission to make a comprehensive study of the park needs of the state. This study was not completed by that committee, but by its successor, the Committee on State Park Plan of the New York State Association. The Committee on State Park Plan recommended the adoption of a plan which would insure for all time the further extension of the Adirondack preserve. It recommended that a bill be submitted to the 1923 session of the legislature for the issuance of serial bonds for state parks—25 years for development and improvement, 50 years for acquisition of land—not to exceed the sum of

$15,000,000. This program was submitted to Governor Smith and to the legislature early in 1923. It passed the assembly unanimously, but was dropped in the senate to give precedence to a bond issue for state hospitals. The Governor then sent a message to the legislature endorsing the state park program, asking for sufficient appropriations for a year's work and stating that the park bond issue should be passed in 1924. An appropriation for the ensuing year was made. A bill also passed providing that the proceeds from the sale of unappropriated lands not transferred for park or playground purposes go into a fund for the development of state parks.

The state park bond issue bill passed the legislature in 1923, and when submitted to the voters in 1924 had the support of all political parties and was carried by almost a million majority.

Plans for the organization of the State Council of Parks also originated in the Committee on State Park Plan of the New York State Association. The state parks of New York were under many separate commissions and the coordination of these agencies in one central body, including regional and county park commissions, was undertaken in 1924. Appropriations of $6,000,000 under the bond issue were asked of the 1925 legislature by the State Council of Parks on behalf of its constituent associations. Bills allotting the amount were passed by the legislature but vetoed by Governor Smith because of his objection to provisions for fiscal control.

This problem was studied by a subcommittee of the Reorganization Committee of State Departments, which reported that the power given the State Council of Parks to make up budgets was without parallel in the state government. It recommended that the Council be reorganized with the conservation commissioner as chairman, that it name its own vice-chairman, that the method of representation of the regional commissions on the Council be continued. The committee further recommended that for the disbursement of state moneys the state and county commissions be brought into the Department of Conservation and their administration be made a function of the department. It suggested a division of parks be created in the Department of Conservation, consisting of the State Council of Parks and the agencies composing it, and that the budgetry powers of the State Council of Parks be modified so that these powers would be in the form of recommendations. The formal approval of the Conservation Commissioner was also to be a condition of the exercise of the powers of appropriation and condemnation so far as the disbursement of money is concerned.

In the meantime a bill passed the legislature and was approved by the Governor for the immediate release of the entire amount of the bond issue with the understanding that the allotment of these funds as recommended by the State Council of Parks must be approved by a committee consisting of the Governor, the Speaker of the House and the Chairman of the State Finance Committee.

In 1927, under the Reorganization Act, the administration of state parks was placed under a newly created division of parks of the Conservation Department. This division is composed of the State Council of Parks, the State commissions, boards and associations having charge of the various state parks which, however, continue to exercise their respective functions, subject to the approval, supervision and control of the Conservation Commissioner. The Department of Conservation has authority to make rules and regulations for the management, maintenance, improvement and development of the parks to be carried out by the authority in charge. The law of 1927 making the Conservation Commissioner chairman of the State Council of Parks was again changed in 1928 and the chairman and vice-chairman of the Council are elected by its members. The executive officer of the Division of Parks serves as the secretary of the State Council of Parks.

The State Council of Parks acts as a central advisory agency for all parks and parkways under the jurisdiction of the Department of Conservation, and as a clearing house for information on park planning and administrative matters. It formulates and recommends to the Commissioner plans for the management, improvement, construction and extension of the parks and monuments under the jurisdiction of the department. It may recommend the construction of new state and county highways between the parks. Estimates for expenditures are submitted to the State Council of Parks by the various authorities, the Council transmitting them to the Conservation Commissioner with recommendations. The Conservation Commissioner may revise or approve the estimates. The sole exception to this rule is the Palisades Interstate Park Commission whose estimates are transmitted to the Conservation Commissioner without recommendation.

The members of the State Council of Parks are as follows:

Robert Moses, chairman, New York City, president Long Island State Park Commission. A. T. Fancher, vice-chairman, Salamanca, chairman Allegany State Park Commission. J. Du Pratt White, Nyack, president of the Palisades Interstate Park Commission. Alphonso T. Clearwater, Kingston, president State Reservation at Niagara. George F. Kunz, New York City, president

The American Scenic and Historic Preservation Society. V. Everit Macy, Ossining, president, Westchester County Park Commission. Robert H. Treman, Ithaca, chairman Finger Lakes State Parks Commission. Franklin D. Roosevelt, Hyde Park, chairman Taconic State Park Commission. Harry C. Walker, Binghamton, chairman, Central New York State Parks Commission. Edwin Lang Miller, Buffalo, president Erie County Park Commission. William G. Howard, Albany, superintendent Division of Lands and Forests, Conservation Department. Charles C. Adams, Albany, director of the New York State Museum. Alexander C. Flick, Albany, state historian.

Under the law in New York the income from state properties goes into the state treasury and is deposited in a park fund for each separate region and is appropriated by the legislature. In 1924 and 1925 legislation was passed which permitted the Palisades Interstate Park Commission and the Allegany State Park Commission to retain the income from revenue producing services.

The state park authorities in New York have the power of acquiring land for state park purposes through the exercise of condemnation and appropriation. Under condemnation authority lands are acquired in the usual manner, the official agency giving notice of its intention, but usually not taking over the property for improvement until the award is made by a commission ratified by the courts and payment made to the owner. In some cases the condemnation law permits the taking over of property at once. Through the method of appropriation any official agency may, with the consent of the Governor, take at once any property and develop it for its purposes. An amount approximating the award which may be made is set aside and payment to the owner of the land is made when the award is made. This method of appropriation has been used in two cases with the consent of Governor Smith. Through its use property at Montauk Point and at Islip, Long Island, was appropriated. There was some objection to the appropriation of the land at Montauk Point. The owners of the land at Islip fought the case and prevented the improvement of the land through injunction pending the outcome of their suits. The courts decided in favor of the Long Island State Park Commission and the land was appropriated for state park use.

Henry F. Lutz is the executive officer of the Division of Parks with headquarters at the Conservation Department in Albany.

For administration of the parks and parkways the state is divided into eleven park regions, each under the charge of a commission, as follows:

The first region consists of the county of Niagara and is under the charge of the Commissioners of the State Reservation at Niagara.

The second region consists of the counties of Chautauqua, Allegany, and Cattaraugus, except portions of Cattaraugus County included in the eleventh park region. It is administered by the Commissioners of the Allegany State Park.

The third region consists of the counties of Orleans, Genesee, Monroe, Wyoming and Livingston, and is under the jurisdiction of the Letchworth Park Committee of the American Scenic and Historic Preservation Society.

The fourth region consists of the counties of Wayne, Ontario, Steuben, Chemung, Schuyler, Yates, Tioga, Tompkins, Seneca and Cayuga, except the watershed of Skaneateles Lake. It is administered by the Finger Lakes States Parks Commission.

The fifth region consists of the counties of Oswego, Onondago, Madison, Courtland, Chenango, Otsego and Broome and the watershed of Skaneateles Lake, controlled by the Central New York State Parks Commission.

The sixth region consists of the counties of St. Lawrence, Clinton, Lewis, Franklin, Jefferson, Oneida, Herkimer, Hamilton, Essex, Warren, Montgomery, Fulton, Ulster, Albany, Saratoga, Washington, Schenectady, Greene, Schoharie, Delaware and Sullivan and is under the jurisdiction of the Division of Lands and Forests.

The seventh region consists of the counties of Columbia, Dutchess, Putnam and Rensselaer, and is administered by the Taconic State Park Commission.

The eighth region consists of the counties of Orange and Rockland, and is administered by the Commissioners of the Palisades Interstate Park.

The ninth region consists of the county of Westchester, with the Westchester County Park Commission acting as agent for the state.

The tenth region consists of the counties of Nassau and Suffolk under the charge of the Long Island Park Commission.

The eleventh region consists of the county of Erie and so much of the county of Cattaraugus as is contained between the present boundary line of Cattaraugus and Erie counties and in line running parallel with such boundary line and two miles south of such boundary line. It is administered by the Erie County Park Commisison as the agent for the state.

The Niagara Falls Commission

The preservation of the country surrounding Niagara Falls as a state park was urged as early as 1869. In 1878 the Governor-

General of Canada suggested to Governor Robinson that an international park be established. This suggestion was advocated by the Governor in a message to the legislature in 1879. The commissioners of the state survey were instructed to investigate the proposal and in 1880 submitted a report to the legislature urging state control of the property. This action was not favored by Governor Cornell who had succeeded Governor Robinson. In 1883, on the election of Grover Cleveland as Governor his support of the project was obtained. A bill passed the legislature, a Niagara Falls Commission approved and its members appointed by the Governor. In 1885 the legislature voted a bond issue of $1,000,000 for the acquisition of lands, and on July 15 of that year the reservation was formally dedicated.

Beginning in 1923 appropriations of $125,000 and of $100,000 were made for the enlargement of the reservation by memorial riverways and reserves extending along the Niagara River from Lake Erie to Lake Ontario. The sum of $1,000,000 was allotted from the state park bond issue of 1924 for a continuation of this work. The first and most important property to be acquired was the famous "Devil's Hole," a beautiful chasm of historic interest north of the Niagara Falls city line, comprising approximately 30 acres. Across the Lewiston Road from this property lots are being acquired to protect road frontage. From this point midway between the Falls and the Lewiston escarpment land will be added. Land affording fine views at the promontory on the De Veaux College land overlooking the Whirlpool and both the upper and lower rapids has been acquired and will be known as Whirlpool Park. At Fort Gray ten acres has been acquired. Excellent tracts of magnificent wooded land sloping down to the Lewiston-Queenstown bridge and beyond this to the Lewiston village will be added. In the neighborhood of Prospect Point, at the edge of the American cataract, the commission has acquired property across the riverway and as well as on Niagara Street adjacent to the riverway and extending out to the top of a high bank. Unsightly old buildings will be removed and trees and shrubs will be planted. The reservation probably will be extended toward Tonawanda and Buffalo. The commission has a problem in the administration of the reservation since its area includes high precipitous bluffs bordering the swift current of the rapids, which require special safeguards for visitors.

The Commission has authority to sell and remove from the reservation all structures not required for access to the reservation; to accept gifts of real and personal property; to retain from the receipts derived from the concession granted for the Cave of the Winds a sum necessary to construct an elevator to provide

better access to the cave; to establish, acquire, control and manage other state parks and parkways in the region of which it has charge; make rules and regulations and enforce ordinances; to fix charges of drivers of public conveyances within the limits of the reservation; and to appoint superintendents for reservations and parks under its control.

The Niagara State Reservation Commission consists of five persons appointed by the Governor with the consent of the senate. Each commissioner must be a resident of the state. They receive no compensation for their services, but are entitled to disbursements for actual expenses in the performance of their duties. The commission is composed of Alphonso T. Clearwater, president, Kingston; Frank M. Spitzmiller, Buffalo; Henry P. Werner, Buffalo; Robert H. Gittens, Niagara Falls; Paul A. Schoellkoff, Niagara Falls. The headquarters of the Commission is at Niagara Falls.

The Allegany State Park Commission

In 1920 the Buffalo Society of Natural Sciences and the Erie County Society for the Protection for Birds, Fish and Game appointed a committee to develop plans for the creation of a state park. Various conservation interests in the western part of the state participated. Hamilton Ward, of Buffalo, was chairman. Through this committee a bill for an appropriation of $50,000 to purchase park land was presented to the 1921 session of the legislature. It was cut to $25,000, and the condition made that a like amount be raised through subscription. A forest experiment station owned by the state, consisting of 1,200 acres, was turned over as a nucleus. The necessary sum was raised and the State Park Commission contracted for 7,020 acres additional. A park of 65,000 acres will eventually be established. It will serve as a playground for almost two million people.

The bill creating the park established a commission of seven to be appointed by the Governor with the consent of the senate. This commission has authority to establish, acquire, control and manage other state parks within the area over which it has jurisdiction. It may build necessary roads and bridges, erect camps and provide other facilities, and may appoint patrolmen and game wardens who have the powers and duties of constables of towns. The commission is authorized to cooperate with the State of Pennsylvania should it acquire land adjoining the Allegany State Park, for the purpose of joint control and operation of the lands in New York and Pennsylvania. The commission also has power and authority to appropriate real and personal property with the approval of the Governor, when

such appropriation is necessary for state park purposes or for the protection and conservation of fish and game.

The commission also has jurisdiction over the Cuba reservation of 500 acres in Allegany and Cattaraugus counties. It has authority to preserve this area for reservoir and camping purposes; to make leases for the rental of lots on the reservation; to permit the erection of structures under lease; and to sell land not considered desirable for camping purposes—the proceeds from such sales to be used for the purchase of additional land.

The Allegany State Park Commission is composed of Albert T. Fancher, chairman, Salamanca; Chauncey J. Hamlin, Buffalo; William T. Noonan, Rochester; John P. Sullivan, Buffalo; Hamilton Ward, Buffalo; George C. Diehl, Buffalo; and Edward G. Kaiser, Dunkirk.

The Letchworth Park Committee

The Letchworth Park Committee of the American Scenic and Historic Preservation Society was given supervision and control over parks and parkways in the counties embraced in the third region, including the Letchworth State Park. A provision of the chapter of the law creating this committee provides that the American Scenic and Historic Preservation Society shall have jurisdiction and control over the original lands and improvements contained in Letchworth Park. The society also has authority to accept gifts and to receive contributions for lands and parkways.

The state park bond issue of 1924 allotted $500,000 to Letchworth Park-Genesee region to be used for additions and parkway connections.

The Letchworth Park, which comprises 1,000 acres, includes the three famous Portage Falls on the Genesee River, donated to the state in 1907 by Dr. William Pryor Letchworth. Some years ago the American Scenic and Historic Preservation Society entered into an agreement with the Mount Morris Water Power Company for the construction of a dam on the Genesee River fourteen miles down stream from the park. The dam proposed by the power company would flood approximately five acres of the park but would not reach the foot of the lower falls. Since the scenery of the park would not be injured the society gave its consent to a "permit and grant" under the terms of which it obtained 500 acres of land adjoining the park and the reservoir which would remain above the high-flow line when the reservoir was filled. It also required that the reservoir be used for pleasure boats, fishing and aquatic sports, and that the company furnish without cost 100 horsepower of

electrical energy for lighting the park. This agreement did not bind the state and it was necessary to pass an act giving authority to enter into the contract. A recent development as a result of this action was the application in 1927 by the Commonwealth Power Company for a permit to develop power above the falls, south of the park, carrying the water by a 6-foot tunnel to a point below the lower falls within the park. In return for the use of park property the company proposed to give about the same in return as in the case of the Mount Morris Company, paying also part of the rental for the privilege to the park. This proposal has met with strong opposition. The park property is safeguarded since the approval of the trustees of the society, the State Council of Parks and the State Water Power Commission is required.

The Letchworth Park Committee consists of Wolcott J. Humphrey, chairman, Warsaw; Charles A. Van Arsdale, Castile; Edward H. Letchworth, Buffalo; Adelbert Moot, Buffalo; Harvey F. Remington, Rochester; Robert H. Treman, Ithaca; Mrs. Herbert Wadsworth, Genessee; Ernest L. Woodward, Le Roy; Lockwood R. Doty, Genessee; James E. Nash, Silver Springs; Dr. George F. Kunz, New York City.

The Finger Lakes State Park Commission

Two of the state parks now administered by the Finger Lakes State Park Commission at one time were under the charge of two separate commissions—the Watkins Glen Commission and the Enfield Park Commission. In 1924 they were combined in the Finger Lakes State Park Commission. Other park areas were immediately added to the jurisdiction of this new commission.

The Commission consists of seven nonsalaried members, appointed by the Governor with the consent of the senate. It has control and management of the park areas within the fourth region. It may acquire, control and manage other state parks and parkways in this region; provide for the protection and propagation of fish and game in the parks, reforestation of the land within the parks; acquire additions to the parks already existing; convey lands under its control in exchange for lands to be added to the reservations; and make and enforce rules and regulations relating to the park areas.

The Commission has under its jurisdiction eight parks with a total area of approximately 4,000 acres. These parks are easily accessible by excellent highways and railroad and are in one of the most picturesque sections of the state. They include many beautiful lakes and waterfalls.

The Finger Lakes State Commission consists of Robert H. Treman, chairman, Ithaca; Arthur W. Booth, Elmira; John B. Ma-

creery, Watkins; Murray Hulbert, New York City; Frank E. Gannett, Rochester; William M. Leffingwell, Watkins; Henry O. Palmer, Geneva.

The Central New York State Park Commission

The Central New York State Park Commission was one of the two new regional commissions created by the legislature in 1925. It has under its charge six state parks with a total area of over 3,500 acres. Within the region there are also four reservations or parks which are under the jurisdiction of the American Scenic and Historic Preservation Society.

This section contains many hills and valleys, lakes and streams—a diversified area is available for park development. The commission and the planning committee of the State Council of Parks have under consideration plans for a comprehensive park development.

The Commission consists of five members, appointed by the Governor with the consent of the senate, who serve without compensation but are entitled to actual expenses in connection with their official duties. The law provides that four of the members of the Commission must reside within the district over which the commission has jurisdiction.

The Commission has authority to establish state parks and parkways within the area which it administers; to employ persons necessary to assist in the management of the parks; to fix the price to be charged by drivers of public conveyances within the parks; to provide for the protection and propagation of fish and game within the parks and for reforestation; and to appoint officers for the enforcement of the law and ordinances established within the parks.

The Central New York State Park Commission consists of Harry C. Walker, chairman, Binghamton; Edward N. Trump, Syracuse; Charles T. Smith, Oneonta; William H. Hill, Johnson City; John R. Clancy, Syracuse.

The Taconic State Park Commission

Early in 1923 the suggestion was made for the development of a tri-state park of approximately 40,000 acres in the Taconic Mountains, 20,000 acres to lie in Massachusetts, 11,000 in Connecticut and 9,000 in New York. Massachusetts early purchased a tract including the beautiful Bash Bish Falls, and a small tract of land was donated to New York by Frances R. Masters. An agreement was entered into between New York and Massachusetts under which each state would make purchases with money which became available. The state park bond issue of 1924 included the Taconic

project in the $500,000 allotted to parks other than those named for specific amounts. The New York unit now has an area of 4,000 acres.

In 1925 the legislature created the Taconic State Park Commission with authority over this project and other parks which may be developed within the region it administers. The Commission consists of five nonsalaried members appointed by the Governor with the consent of the senate. Three of the commissioners must reside in the district under its administration.

The Commission has authority to establish parks; to control and manage parks under its jurisdiction; to fix prices; to provide for the protection of fish and game, and for reforestation; and to accept gifts.

Under the law creating the Taconic State Park Commission there is a provision that no fee may be charged for entrance to or passing through any of the parks and parkways under its jurisdiction.

The Taconic State Park Commission consists of Franklin D. Roosevelt, chairman, Hyde Park; Madison Grant, New York City; Vanderbilt Webb, Garrison; Francis R. Masters, Copake Falls; William W. Niles, New York City.

The Long Island State Park Commission

The Long Island State Park Commission was created in 1924. It has under its administration 15 parks with a total area of 8,128 acres. With three exceptions the parks are all within a day's run of New York City and are used by thousands of people.

The Commission was created to preserve a portion of the water front for the use of the public, and under its present program is to set aside 40,000 of the 864,000 acres in the two counties under its administration. It has plans for a system of northern and southern parkways and cross island parkways and for the acquisition of land on the shores of the Island, including the transfer of the town beaches of Hempstead, Oyster Bay and Babylon.

The Long Island State Park Commission consists of three members appointed by the Governor with the consent of the senate. The Governor has authority to name the president of the commission. The law requires that both Suffolk and Nassau counties have at least one representative on the commission.

In addition to the authority granted to other commissions the Long Island State Park Commission has power to accept on behalf of the state for state park purposes land owned by the United States Government which may be conveyed to it. It has specific authority to condemn land for park purposes, the condemnation proceedings

to be begun and carried on by the commission in the manner provided by the condemnation law.

The Long Island State Park Commission consists of Robert Moses, president, New York City and Babylon, Long Island; Thomas A. McWhinney, Long Island; Clifford L. Jackson, Hampton Bays, Long Island.

The Palisades Interstate Park Commission

A number of years ago a popular demand arose for the preservation of the Palisades of the Hudson. This movement developed great strength in the early nineties, and, as a result, the legislatures of New York and New Jersey passed acts requesting the United States Government to acquire the Palisades and contiguous lands. A bill, introduced in Congress, failed of passage. In 1900 appropriate legislation was passed by the legislatures of both New York and New Jersey and a New York commission and a New Jersey commission were incorporated that year. The law provides that each commission shall be composed of ten members appointed by the Governors with the consent of the respective legislatures. Five commissioners are required to be citizens and residents of New York and five of New Jersey. They serve without compensation. Their terms are for five-year periods, and the terms of two—one a resident of New York and one a resident of New Jersey—expire each year. It was the intention of the statute that the two commissions be identical and work in harmony for the selection, appropriation and management of the park composed of lands along the entire front of the Palisades. The commissions were given power to sue, to make and adopt by-laws, to take lands within their respective jurisdiction by purchase, gift, devise, or eminent domain.

The jurisdiction of the Palisades Interstate Park Commission now extends over all lands lying between the top of the steep edge of the Palisades and the exterior bulkhead line of the Hudson River from Fort Lee, New Jersey, on the south to Piermont Creek, New York, on the north, as well as over all mountainous lands to the north of Piermont Creek along and adjacent to the west bank of the Hudson River in Rockland and Orange counties, south of the city of Newburgh and westerly into the Ramapo Mountains, excepting the lands comprising the West Point Reservation and other lands owned by the State of New York. The original commissioners appointed in 1900 by the Governors of New York and New Jersey are as follows: New York—George W. Perkins, J. Du Pratt White, Ralph Trautmann, D. McNeeley Stauffer, Nathan F. Barrett; New Jersey—Abram S. Hewitt, Edwin A. Stevens, Abram De Ronde,

Franklin W. Hopkins and William A. Linn. Two of these commissioners who were appointed twenty-five years ago are still members of the board.

One of the most important elements in the building up of the Palisades Interstate Park has been the confidence and support of private contributors. In 1900 J. P. Morgan contributed $122,500 to take up the original options which made possible the creation of the park. In 1910 Mrs. E. H. Harriman gave the state 10,000 acres of hill and lake country in the Highlands of the Hudson and $1,000,000 in cash to develop and enlarge the park. The voters of New York then approved a bond issue of $2,500,000 which the legislature had passed and New Jersey appropriated $500,000 for the Henry Hudson Drive along the Palisades. Private contributions followed Mrs. Harriman's totaling $1,650,000. The contributors were J. P. Morgan, sr., $500,000; John D. Rockefeller, sr., $500,000; John D. Archbold, George W. Perkins, Margaret Olive Sage, George F. Baker, Elbert H. Gary, Frank A. Munsey, Henry Phipps, James Stillman, E. T. Stotesbury, William Rockefeller and William K. Vanderbilt, $50,000 each; Helen Miller Gould, Ellen F. James and Arthur Curtis James, V. Everit Macy, Cleveland H. Dodge and James McLean, $25,000 each.

To December, 1927, the commissioners have received from private sources in cash and in the value of lands donated the sum of $8,080,991.

To December, 1927, the commissioners have received from the two States in cash and in the value of lands transferred to the park $3,199,717.

The total of funds appropriated and contributed to the entire Palisades Interstate Park System, including the value of lands donated, is $21,125,784.

When the development of the Palisades as a park began the area was little used for recreation. As the blasting ceased people from the two states began to use the park area. During the summer of 1905, the commission issued only 25 camping permits, contrasted with 1,000 in 1909. The number of daily visitors to the park increased correspondingly. Today the Harriman section of the park has been extensively developed with roads, group camps, parking and picnic spaces. Headquarters are located at Bear Mountain, where there is an administration building, a large log inn, athletic fields, picnic groves, swimming pools and other facilities. The commission operates steamboats from New York to the park. It also operates a fleet of busses, a restaurant and cafeteria service. Bear Mountain Inn has developed a large business, with an annual income of approximately $500,000.

One of the most interesting developments in the park is the building of group camps. The first group camp was that of the Boy Scouts of America, constructed in 1913. Upper and lower Cohasset Lakes and Summit and Barnes Lakes in the northwest section of the park are reserved for group camps for girls. Lake Stahahe is used by approximately twenty social welfare organizations. A camp for its employees has been constructed by the New York Life Insurance Company. The organizations building these group camps are not required to pay the entire cost of construction. The park authorities build the structures from standardized plans and then turn over the buildings to the organizations for an annual maintenance charge which will cover the overhead and amortize the principal in eight years. Sites along lakes are available for camping and may be obtained by permit along the Seven Lakes Drive. Camping is also permitted on Queensboro Lake and on Lake Tiorati. Queensboro Lake is not open to swimming. Tourists are required to bring their own equipment. Tent space rents for 50 cents a night. Camping permits are required and can be secured at the park headquarters. Campers planning to remain for a long period are permitted to erect tent platforms. The utmost care is taken to assure health conditions in the park. Water supplies to the camps are chlorinated to make them thoroughly safe. Sanitary facilities are provided. Food supplies are available at a number of places. There are a dozen motor camp grounds at several of the lakes along the park highways which are free for one day, with a charge of $1.00 a day thereafter. Fishing is permitted in a majority of the lakes and streams, but hunting is prohibited.

Nature study has been well organized for a number of years. A staff of nature counsellors have charge of the museums at the various camps and direct the nature work. Some of the finest hiking trails in the state have been built. They are run along the skyline and afford magnificent views of the vicinity. The trails are all well marked.

Winter use has developed extensively in the past few years. Bear Mountain Inn, the center of winter activity, is open from November to April. Skating rinks, toboggan slides and other facilities are available, for the use of which there is only a nominal fee. Snowshoeing and skiing are popular sports. A ski jump was erected in 1926 and has proven extremely popular. Many of the camping organizations keep their camps open during the winter.

The park consists of over 47,000 acres. It is in one of the wildest and most rugged regions of Eastern United States. The deep

valleys are covered with hardwood forests, with some stands of hemlock along the streams and cliffs. It has many natural lakes, and a number of artificial lakes have been constructed under the direction of the chief engineer and general manager, Major William A. Welch, thus adding thousands of acres of water surface.

The administration of the park is a business in itself. The commission appointed a general manager to manage the park and its various enterprises and created an operating committee consisting of the heads of the various departments. The departments cover restaurant service, transportation, camping, construction, accounting, purchasing, information and police. The committee meets for discussion on the various phases of park work and submits recommendations to the commission. The general manager is chairman of the operating committee.

The income derived from the operation of the park facilities is used partly for the improvement of such facilities and their extension, and partly for the general maintenance of the park.

The commissioners of the Palisades Interstate Park are as follows: New York Commission, J. Du Pratt White, president; Franklin W. Hopkins, vice-president; George W. Perkins, Jr., secretary; Edward L. Partridge, treasurer; Frederick H. Osborn, Garrison, N. Y.; W. Averell Harriman, Arden, N. Y.; Frederick C. Sutro, Basking Ridge, N. J.; William Childs, Bernardville, N. J.; Charles W. Baker, Montclair, N. J.; George T. Smith, Jersey City, N. J. New Jersey Commission: Frederick C. Sutro, president; Edward L. Partridge, vice-president; George W. Perkins, Jr., secretary; and William Childs, treasurer. The Messrs. White, Baker, Hopkins, Smith, Osborn and Harriman, are other members, as in the New York Commission. Elbert W. King is assistant secretary and treasurer. Major William A. Welch is chief engineer and general manager. The offices of the commission are at 25 Broadway, New York City.

Westchester County Park Commission

The Westchester County park system is a county program, but is included in this outline since it is one of the most comprehensive programs in the state and links up with state parks in other sections of the state. It is represented on the State Council of Parks.

The Westchester County Park Commission was created by the legislature in 1922. Previously, in 1910, the Bronx Parkway Commission was created to build parkways from Bronx Park on the outskirts of New York City to the Kensico dam in Westchester County. The work of this commission was completed in 1925. The

New York section of the parkway was turned over to the city for maintenance, and the Westchester portion became a part of the county park system. The Westchester County Park Commission acts as agent of the state in regard to the extension of the Bronx River Parkway, as well as to any future state park work in the county.

The system of parks under the administration of the commission affords many opportunities for outdoor recreation. In addition to beach parks it includes many attractive inland forest areas which offer picnic opportunities in the hill and lake region. The establishment of the park system was begun through the transfer of state-owned land at Mohansic Lake to the Westchester County Commission in 1922, for the use of the people of the state as a public park. This was the first link in the park system. In the four years succeeding remarkable progress has been made in the acquisition of lands included in the established system of parks and parkways. The total length of parkways in the system is 140 miles, while the park's shore lines on the Hudson River and Long Island Sound extend nine miles. Over $40,000,000 has been expended in the acquisition and improvement of these areas.

While the commission does not regard the park system as a business enterprise, recreational facilities have been installed for which a small charge is made. Bathing, boating and water sports are available and athletic fields, tennis courts, golf courses, camping and picnic places are a feature of the development. They are also used for skating and winter sports. At the end of 1927 the budget for park operation and maintenance was $750,125, and the income from the park system was $462,518. These figures are a clear indication that before many years the park system will yield an income which will practically meet operation and maintenance costs.

The Bronx Parkway extension is a state project, financed by state funds, under the administration of the Westchester County Park Commission. The sum of $1,000,000 of the 1924 bond issue for $15,000,000, was allotted to the Bronx Parkway extension. The parkway extends from the Kensico Dam to Bear Mountain Bridge at Peekskill by way of the Mohansic Reservation.

Approximately 98 per cent of the property acquired by the commission has been secured through direct purchase—the remainder by condemnation. Lands have been acquired at a low overhead cost of acquisition, amounting to approximately 4 per cent of the aggregate cost paid by the commission to property owners. Condemnation proceedings have been avoided except where it was necessary to obtain title to land needed to complete the acquisition work on some project within a reasonable time. Condemnation

was resorted to in several instances where unreasonable prices were asked and where it was necessary to extinguish long-term leases.

The Westchester County Park Commission consists of the following: V. Everit Macy, president; Arthur W. Lawrence, vice-president; William J. Wallin, treasurer; John G. Agar, Cornelius A. Pugsley and Mrs. William A. Read. Jay Downer is chief engineer. The offices of the commission are at 72 West Pendfield Road, Bronxville, N. Y., and Court House, White Plains, N. Y.

Erie County Park Commission

The Erie County Park Commission was created by the New York State Legislature in 1924 for the development of a system of parks and parkways near Buffalo and to work with the Niagara Frontier Planning Board. The commission has authority, as an agent of the state, to create state parks and parkways within the region over which it has jurisdiction. It may also accept gifts of land for parks and parkways.

At present Erie County, which is situated in the western section of New York, has only one state park within its confines, although approximately one-tenth of the population of the state is within its boundaries. However, under present plans, within the next ten years approximately $10,000,000 will be spent in Erie County along the Niagara frontier for the construction of parkways and bridges which will connect the State Reservation at Niagara, the Erie County Park System, the Allegany State Park and then on to the great national forest of over one million acres which is being established by the Federal Government in northern Pennsylvania. This development has started with the acquisition of 500 acres of land on Grand Island for state park purposes—the first state park in the county. In this work the commission is cooperating with the commissioners of the Niagara State Reservation Commission and is working with the advice of the State Council of Parks.

When the commission was created it was made the agent for the expenditure of moneys which might be appropriated for the Niagara frontier within Erie County. It was the intention to coordinate the state parkway along the Niagara River with the county park systems.

The Erie County Park Commission consists of Richard S. Persons, chairman, East Aurora; George W. Wenz, Buffalo; Franklin E. Bard, Gowanda; John L. Lenahan, Buffalo; Edwin Lang Miller, Buffalo; Frank M. Spitzmiller, Buffalo; and Hamilton Ward, Buffalo. Mr. Wenz is secretary of the commission and can be reached at Buffalo.

The Division of Lands and Waters

The two largest state parks in the United States are under the administration of the Division of Land and Waters of the Conservation Commission—the Adirondack and Catskill parks. The Adirondack Park contains two million acres of strikingly beautiful scenery of crystal lakes, splashing streams, valleys and mountains. The Catskill Park, of 160,000 acres, is a magnificent area of high steep mountains covered with hardwood forests and virgin spruce. The Conservation Commission also administers the Lake George and Saranac Springs State parks and the St. Lawrence Reservation.

The parks are extensively developed for the use of the public. Facilities for camping and picnicking are available, while at Lake George there is boating, fishing and every type of water sport.

In the forest preserve, that is, the Adirondack and Catskill parks, camping is free. Permits must be obtained from the ranger in charge, except in the public camp sites where a permit is not required for a stay of three days or less in one place. Canvas tents without platforms are permissable when camping for several days without permit. Open log camps of standard design and portable canvas houses may also be erected, but no particular site may be used from year to year. However, anyone erecting a tent platform under permit is given preference in the use of that platform the following year. The commission has erected along the trails a large number of open log camps.

Concerted effort for the preservation of these forests came first in 1883, when Governor Ezra Cornell urged the legislature to prohibit further sales of state forest land. At that time the land reached approximately 800,000 acres and was principally in the Adirondacks. The State Forest Commission was created by the legislature in 1885. The same legislature outlined the region in which the forest land was to be preserved. In 1894 the state constitution, amended by the legislature and approved by the voters, provided that "The lands of the state, now owned or thereafter acquired, constituting the forest preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or be taken by corporations, public or private, nor shall the timber thereon be sold, removed or destroyed." This provision was interpreted to mean that the forest land should be held intact from any commercial development and from use for private purposes. In 1897 the area of the Adirondack Park was decided upon and in 1899 the Catskill Park boundaries were outlined.

Since the use of the land for private purposes was forbidden, the Conservation Commission immediately took steps for the removal

of occupants of land used for hotel purposes and agriculture or hunting camps. This clause prohibiting private use was interpreted to mean that forest areas must be held for the benefit and use of all the people. In 1915 an amendment was advocated by the commission which provided for the leasing of camp sites. This amendment was rejected by the convention, as was a similar attempt by the 1916 legislature. Since that time sentiment has grown favorable to another attempt to pass an amendment permitting the leasing of camp sites but nothing definite has been done. The Conservation Commission, therefore, under the advice of the Attorney General, has ruled that no one may claim any particular camp site from year to year and that the only structures which may be erected are open log camps of standard design, tents with or without platforms and portable canvas houses.

More than 450 miles of trails have been developed in the Adirondack region. For the canoeist there is an interesting trip of 100 miles from Old Forge through the Fulton chain of lakes, Raquette, Fort Lake, Long Lake and the Raquette River to Saranac Lake and the St. Regis Lakes. Open camps are found along the route. Canoes and outfits may be hired at various points and shipped back at the end of the trip.

Many of the state historical areas are located in the Adirondack region of New York. Many historical events of the early history of the United States are interwoven in this region.

The Division of Land and Waters is under the direct supervision of William G. Howard, who can be reached at Albany.

State Historical Agencies

There are a number of state monuments or historical parks in New York which in the past were under the administration of the New York State Museum, the American Scenic and Historic Preservation Society and the State Council of Parks. Recent legislation has placed all of the historic reservations, except those under the American Scenic and Historic Preservation Society, under the care of the regional district in which they are located.

The American Scenic and Historic Preservation Society was granted a charter by New York State in 1895. It was authorized "to acquire by purchase, gift, grant, devise or bequest historic objects, or memorial or picturesque places in the state or elsewhere in the United States." The society may also hold real or personal property. Under the charter admission must be free to all areas it holds. Several notable scenic and historical properties have been acquired. They are maintained through endowments and general

revenue and through appropriations by the state for their purchase, upkeep and improvement. Parks, such as the John Boyd Thatcher Park and the Stony Point Battlefield Reservation, have improvements of recreational value. The society became a member of the State Council of Parks on its creation in 1924. Dr. George F. Kunz is president of the society and Raymond H. Torrey is secretary. Its offices are at 154 Nassau Street, New York City.

State Forests

With a land area of over 30,000,000 acres New York has a present forested area of 12,000,000 acres, of which only approximately 200,000 acres are virgin timber. Interests in the preservation of this forest land developed in 1820, when Governor De Witt Clinton urged the legislature to preserve the Adirondack forest. His plea was due primarily to the need for the maintenance of a supply of water for the Erie Canal which was just coming into service. Nothing was done until 1883, when Governor Ezra Cornell urged the enactment of a law prohibiting the further sale of land within the Adirondack area. He appointed a commission to study this proposal. In 1885 the State Forest Commission was created and given custody of the Adirondack lands. In 1895 the forest commission became part of the Forest, Fish and Game Commission. New York was the first state to establish a conservation commission, which was created in 1911. The Forest, Fish and Game Commission was merged into the new department, and forestry was placed under the Division of Lands and Forests.

This division under the direction of the commission has the care and control of certain preserves and state lands, has authority to establish and maintain nurseries for the production of trees; may make necessary rules and regulations for the enforcement of the forestry laws; has authority to purchase, subject to the approval of the Governor, lands and forests within the Adirondack and Catskill parks or adjacent areas, and may receive by gift or devise, land or timber for forestry purposes. It may employ convicts to plant trees, with the approval of the head of the department. It may cooperate with private owners regarding proper methods of forestry management, and may enter into cooperative agreement with the United States Department of Agriculture for the protection of forests and the promotion of the practice of forestry.

The executive officer of the Division of Lands and Forests is a superintendent appointed by the Conservation Commissioner. The appointment of an assistant superintendent, a chief land surveyor, five foresters, and such assistant foresters as may be required is

authorized. To secure forest fire protection and enforce the laws, the appointment of seven district forest rangers is authorized. As many forest rangers and fire wardens as are necessary may be employed. The district forest rangers, fire wardens, game protectors, or any other officer who is charged with the duty of fighting fires may, when necessary, employ men to aid in this work at a rate of not exceeding 35 cents per hour.

To protect state land in the state preserves in the Adirondack and Catskill regions, fire towns were established which embrace the entire area of the parks and the more densely forested portion of the mountain land surrounding them. There is an intensive system of forest fire control within these fire towns, with district rangers, forest rangers, and fifty-five fire observation stations. Fire districts, as opposed to fire towns, have been designated by the conservation department in other sections of the state, where there are large contiguous areas of forest lands. In 1928 the legislature extended the protective system to two additional fire towns and added a new forest ranger district. This makes a total of 99 fire towns and six fire districts. When the forests of the state are in danger of fires through drought, the Governor has authority to close the forests or woodlands to entrance. Within the fire towns no fires may be lighted to clear lands, burn logs, or brush without first having obtained a written permit from the department.

Any county, city, town, village, or school district is authorized to acquire lands by purchase or gift for forestry purposes. These lands are under control of the governing board of the county or other agency acquiring them, and revenue from them is paid into the general fund of the municipal division and is used only on order of the governing board. The conservation department is instructed to advise such boards in reforestation, and may provide trees for reforesting without charge on condition they are planted in accordance with instructions of the department.

The department has authority to take possession through appropriation of any lands or forests within or adjacent to the Adirondack or Catskill parks which it deems necessary for public parks.

The reforestation program of New York dates back more than twenty-five years. A hundred and fifty thousand acres of privately owned and state land have been reforested. In 1926 over 20,000,000 trees were shipped by the department, while in 1928 there were available 35,000,000 trees. New York has the most extensive policy of reforestation of any state in the United States.

A notable feature of the reforestation program is the planting done by school districts. Under the conservation law such districts

are authorized to acquire land suitable for school forests, either by gift or purchase. Trees for reforestation are furnished by the commission. Forty-two school district forests have already been established, the largest containing 69,500 trees. There are 316 community forests in the state which contain a total of over 20,500,000 trees. Sixty-three of the municipal forests contain over 25,000 trees, while several contain over 1,000,000 trees.

The largest single plantation owned by the state is the Roosevelt Forest, which is located along the main highway between North Creek and Tahawus. The plantation consists of over 2,000,000 trees. The Gene Stratton Porter Forest has also been planted with 10,000 young white pines, as a memorial to this eminent conservationist and authoress. The Clara Barton Forest, with 10,000 trees, was established in 1926.

A concurrent forestry resolution was introduced in the 1928 assembly, which, even though it was not acted upon, indicates the beginning of a plan to develop the state's reforestation work on a very large scale. This resolution proposed an amendment to the state constitution authorizing a bond issue of not to exceed $5,000,000 a year for twenty years—a total of $100,000,000—for the acquisition and reforestation of lands and the establishment of additional forest tree nurseries which may be needed to grow sufficient planting stock to reforest 200,000 acres each year.

A temporary legislative reforestation commission was created by the laws of 1928. It was directed to investigate generally the subject of reforestation and particularly to ascertain the location, value, and area of lands in the state unsuitable for agriculture which might be utilized for reforestation, as well as the best means of promoting and financing reforestation within the state. The commission is to report to the legislature on or before March 1, 1929, its report to be accompanied by such proposed legislative bills as are necessary to carry its recommendations into effect.

New York cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $41,272 for forest fire protection, $2,000 for the distribution of forest planting stock, and $2,580 for farm forestry extension.

W. G. Howard is superintendent of lands and forests. His headquarters are at the conservation department at Albany.

Game

The conservation of wild life of New York is now centered in the Department of Conservation. This department was originally established as a commission of fisheries. In 1868 the office of chief

game and fish protector was created, followed in 1895 by the establishment of the Fisheries, Game and Forest Commission. This commission was reorganized in 1901 and called the Forest, Fish and Game Commission. In 1911 it was superseded by the Department of Conservation which included a division of fish and game. The executive officer of this division is the chief protector.

The state finance law was amended in 1925 and provision was made for a conservation fund. This fund was created as a result of the request of the sportsmen of the state that they be taxed for the privilege of fishing and that one-half of the receipts from the tax and from hunting and trapping be deposited in a fund to be known as the conservation fund. This fund is expended for the purchase of lands and waters, for the establishment of game farms, for the erection of necessary dams and buildings, and for the employment of such assistants as may be necessary. In the first year over $130,000 was deposited and the legislature appropriated this amount and placed it at the disposal of the commission.

They are under civil service and are required to pass an examination before they are admitted to the service. The game laws of the state are enforced by game protectors. The force has been greatly increased during the past few years and now numbers 150 men. This increase permits the commission to move protectors from various counties into a section which temporarily requires more intensive policing. For example, during the deer season the commission may now assign protectors from the various parts of the state to the Adirondacks without leaving the districts unprotected. Each protector is responsible for a district from 333 to 380 square miles.

The preservation of the deer herd is one of the biggest problems before the commission. A step toward this protection was taken when the 1925 legislature passed a law requiring that every person hunting deer have a special deer license. The fee fixed for this license is $1.25 for a resident and $10.50 for a nonresident. An alien must also take out a license at $10.50 and, in addition, must procure this license direct from the Conservation Commission. If the deer license is found effective the commission recommends that after 1928 a law be placed on the statute books providing for as extensive an open season and as liberal a bag limit on deer as is consistent with its protection.

Due to the ever-increasing demand for game the privately owned game farms total 273. The sale of game in its wild state is at all times prohibited though it may be killed under prescribed rules, and when tagged with seals supplied by the commission may be bought and sold. The game regularly raised on these farms includes elk,

deer, pheasants, geese, ducks, quail, and partridge. The paramount function of the farms, however, is the production of pheasants and pheasant eggs.

The state operates four game farms—the Brownsville, Sherburne, Middle Island and Ithaca Game farms. These farms produce pheasants and pheasant eggs, chickens, and mallard ducks. They range in size from 125 acres to 175 acres.

The Conservation Commission was early given authority to set aside private lands as bird and game refuges when the consent of the owner was obtained. These refuges are established for a period not to exceed ten years.

As a result of the creation in 1926 of the conservation fund, the acquisition of state-owned game refuges has been begun. Two refuges have been acquired; the state already owned one area, the Curtis Refuge in the town of Volney, which was willed to it in 1920. It is the plan of the commission to set aside an area in the center of the refuges where all hunting, trapping and fishing will be prohibited. In this area wild life indigenous to the county will be liberated and species of game which it is thought will thrive will be introduced. The streams will be surveyed and supplied with such fish as they are best suited to receive. On the remainder of the land and outside the central area public hunting, trapping and fishing will be permitted at certain periods of the year. While no provision for such use was made in the law the commission believes such privileges must be granted if the public is to benefit from the establishment of refuges.

The first refuge, the Sherburne, in Chenango County, was created in 1916. There was little wild game in the covers in the vicinity of Sherburne, and the refuge was created by act of the legislature primarily to prevent hunting within a reasonable radius of the state game farm. The area of this refuge is limited, consisting only of such farms as surround the game farm. Its establishment, however, has resulted in an abundance of wild game in this section. Raccoon have multiplied, Canada geeese stop off on their migratory flights, woodduck are not uncommon, and black and mallard ducks abound. Deer, teal, snipe, and pheasants are also found on the refuge.

The Pharsalia Game Refuge was established under the act of 1926. When purchases are completed it will contain approximately 4,500 acres of land at a probable average cost of $6 an acre. The area is a rolling upland with few slopes or deep ravines, and contains an abundance of cover. Here the department plans to

develop a system of forest management in conjunction with the propagation of game.

The state parks of New York are all game preserves, since hunting is prohibited in each of these areas.

Llewellyn Legge is chief protector of the division. Its headquarters are in the Department of Conservation at Albany.

North Carolina

The North Carolina Geological Survey, created in 1891, was the first organization to participate in forestry work. It made studies and published reports on native trees, timber resources and forest fires. In 1905 the Geological and Economic Survey was created, replacing the original survey. Throughout its history this survey maintained a forestry division, which steadily grew in scope and effectiveness. The Department of Conservation and Development was created by the 1925 General Assembly, taking over the work of the Geological and Economic Survey, the Geological Board, and the office of State Geologist.

The direction of the department is vested in a board known as the Board of Conservation and Development. It was originally composed of seven members, including the Governor, but under an act passed in 1927 it now consists of twelve members. These members are appointed by the Governor. They receive no salaries, but are reimbursed for actual traveling expenses. Among other duties the board is directed to promote the conservation and development of the state's natural resources; to secure the better use of lands, forests, and waters; to act as a publicity bureau to advertise the state; to administer state parks, forests, and other recreational areas, and to make investigations of the state's resources. A director is appointed as the executive officer of the department.

Mount Mitchell State Park is controlled and managed by this department, and any other parks which have been or may be acquired will likewise be so administered.

In 1927 the conservation laws of the state were amended and the duties of the Department of Conservation and Development were greatly expanded. A game commission was created under chapter 92, public laws of 1927, and under chapter 250 of the same laws was abolished. All of the duties conferred on it by the earlier chapter were transferred to the Department of Conservation and Development. The director of the department is at present acting as state game warden. The Fisheries Commission was also made a part of the board in the same year.

The expansion of the system of state-owned areas is practically assured under legislation passed in 1927. The Department of Conservation and Development was directed to investigate and locate vacant and unappropriated lands subject to entry and grant, and to determine and report to the Governor which of these lands are suitable for state parks, forests, game refuges, or shooting grounds. The Governor may then recommend to the next session of the general assembly the withdrawal of any lands from entry for the use recommended by the department.

The department was also directed to investigate and locate areas of marsh or swamp land to which the State Board of Education has title, and determine if any of this land is suitable for state parks, forests, game preserves, or shooting grounds. If the recommendation is approved by the general assembly, the land selected will be withdrawn from sale and administered for the purpose for which selected by the department.

The members of the Board of Conservation and Development are Governor Angus W. McLean, chairman ex-officio; S. Wade Marr, Raleigh; James G. K. McClure, Jr., Asheville; B. B. Gossett, Charlotte; Fred I. Sutton, Kinston; Ed. D. Cranford, Asheboro; E. S. Askew, Merry Hill; Santford Martin, Winston-Salem; R. Bruce Etheridge, Manteo; Frank H. Stedman, Fayetteville; Geo. L. Hampton, Canton; J. G. Gilkey, Marion; F. S. Worthy, Washington, Wade H. Philipps is director of the department. J. S. Holmes is State Forester in charge of both state parks and forests. The headquarters of the department are in Raleigh.

State Parks

The State Forest Service, which has charge of the administration of park areas, advocates a strong campaign to secure the gift of lands for this purpose, believing that a system of parks should be developed which will meet the needs of the people of various sections of the state.

North Carolina now has three state parks. The largest of these, Mount Mitchell, was created in 1915, through purchase at a cost of $20,000. Through executive action and later by action of the legislature, this park was placed under the administration of the Department of Conservation and Development. Another area—the Fort Macon State Park—was transferred to the state by act of Congress. It is a former military reservation. The Rendezvous State Park was a gift to the state in 1926.

Camping is allowed in the parks although as yet no permanent camps have been established. The only revenue to date comes from

a restaurant concession in Mount Mitchell Park, 10 per cent of the gross income from which is paid to the state. No state legislative appropriation has been made for administering Fort Macon State Park, but Carteret County has assisted the department in the maintenance of a part-time caretaker.

A possibility for the development of great recreational facilities exists in the lakes of Columbus, Bladen and Cumberland counties. Since Colonial times the lakes in these counties have been the property of the state. In 1911 legislation was reenacted providing that White Lake, Black Lake, Waccamaw Lake, and any other lake in the above counties containing 500 acres or more must never be sold or conveyed, but should always remain the property of the state for the use and benefit of all the people of the state. The lakes were then in the ownership of the State Department of Education, although no authority was given to administer or protect them in any way. When the Department of Conservation and Development was created in 1925, the administration of these lakes was made a duty of the new department. The State Forester believes that, in addition to those specifically mentioned, two to four other lakes come under this law. No funds are yet available for making a survey to determine this fact.

In 1925 the state legislature appropriated $3,000 to be matched by a similar amount from Columbus County, to be used in raising the level of Waccamaw Lake by building a dam across its outlet. The lake, which is four by seven miles, has been exploited as a resort by private enterprise, except for two acres adjacent to the lake which are owned by the state. The state land is administered by the town of Waccamaw. The Forest Service hopes in time to acquire frontage on the other state-owned lakes to provide recreational opportunities for the people.

In the meantime contact has been made with local parties interested in the use of these lakes, and a policy has been formulated for their exploitation. Private use, such as the construction of docks and boat houses, will be continued but under a permit system. At Lake Waccamaw and White Lake five-year renewal permits have been issued for nominal fees.

Many possibilities for the establishment of state parks exist in North Carolina. The extensive road-building program which has resulted in an increase in travel to and through the state will unquestionably lead to a demand for the establishment of additional parks. And this demand may be met satisfactorily through the new powers given the Board of Conservation and Development.

State Forests

North Carolina has an area of over 31,000,000 acres. Two-thirds of this land is forested. During the past twenty years it has been encroached upon to some extent for agriculture, although the tendency is to use for this purpose lands which have already been cleared.

The most important work of the Forest Service is the prevention of forest fires. A trained personnel of five foresters is maintained, all men who have specialized in forest fire prevention. Under their direction 2,500 part-time resident forest wardens conduct an intensive campaign against the spread of forest fires. Educational work is carried on through the use of moving pictures, illustrated lectures and talks before schools and civic clubs. Private land holdings may be listed with the state for protection on a one cent per acre basis, this money to be matched by an equal amount of state and Federal funds. Such cooperative areas are given excellent supervision.

The state cooperates with the Federal Government, under the Clarke-McNary Act, and, during 1928, will receive $41,438 for fire protection, $2,000 for the distribution of forest planting stock, and $1,860 for farm forestry extension. This latter item is expended by the Agricultural Extension Service which retains an extension forester on its staff.

The general work of the State Forest Service, other than forest protection, consists of forest planting, the administration of state parks and forests, the assembling and dissemination of information relating to forest resources and forest industries of the state, and other administrative matters.

The Governor has authority under the law to accept land for state forests when such gifts are recommended for acceptance by the department. The board has the power to purchase lands for this purpose when funds are available. State forests are subject to county taxes on the same basis as private lands, the tax to be paid from the state treasury.

North Carolina's first state forest was donated to the state in 1926. This area will be used primarily as a demonstration forest, although camping opportunities will be available. The State Forester recommends the creation of additional state forests.

Game

The conservation of North Carolina's game began in 1902 with the organization of the Audubon Society of North Carolina, which acted as a State Game Commission. It continued to have charge

of game work until 1927, when the State Game Commission was created by act of the legislature. This commission was abolished by the same general assembly, and all the duties conferred on it under the game laws were placed under the Department of Conservation and Development.

Game work is under the immediate supervision of the State Game Warden. The game laws are enforced by deputy wardens, refuge keepers, and agents employed by the warden with the approval of the commission. All sheriffs, deputy sheriffs, police officers, forest wardens, and constables are ex-officio deputy game wardens, and it is their duty to aid in the enforcement of the game laws. The wardens, deputy wardens, and refuge keepers are also ex-officio special forest wardens, and report forest fires, infractions of the forest fire laws, and assist in extinguishing fires.

A state game fund was created to meet the cost of game work. Funds received from the sale of hunting licenses, or any other source under the game laws are deposited in this fund, which is kept separate and distinct from other funds of the department. An initial appropriation of $10,000 was made, this sum to be returned to the state treasury out of incoming funds.

The department has authority to acquire, by purchase, lease, or gift, lands for the protection and propagation of game and for hunting purposes. When purchased, their cost must be met from the state game fund. State game refuges may be created on these lands and hunting is then prohibited. With the consent of the State Forester, refuges may be located on state forests. Game refuges can not be established within ten miles of any other refuge. Such a refuge can not exceed ten miles at its greatest transverse dimension.

Auxiliary state game refuges for the protection and propagation of game may be created. Lands or waters owned by individuals, corporations, municipalities, the State or National Government may be used for this purpose with the consent of the owner. The hunting rights must be conveyed to the Department of Conservation and Development by the owner, in the form of a lease for a period of not less than ten years. This lease may be canceled by the department upon sixty days' notice, and the owner has similar protection if he desires to sell the land.

North Carolina's first game preserves were areas of 22,000 acres in Pisgah National Forest and 10,000 acres in the Nantahala National Forest, leased to the state for ten years by the Department of Agriculture. The department will furnish warden service, the expense of which is met from the funds of the game division. The Forest Service will continue its cooperation in forest fire prevention.

The areas now contain considerable game, especially that portion which has heretofore been embraced in the Pisgah Refuge. Every effort will be concentrated on further protection of game within the borders of the preserves. Other refuges are the Penn State Forest and Game Refuge of 700 acres, in Rockingham County, and the Guilford County Refuge of 3,000 acres in Guilford County. The state proposes to establish a number of other refuges, among them the Sauratown Mountains Refuge of 30,000 acres in Stokes County; the Holly Shelter Swamp of 30,000 acres in Pender County; the Camp Refuge of 4,000 acres in Gates County; and two areas aggregating 15,000 acres in the Nantahala National Forest, in Transylvania County.

Before the new state game law was in force a year a game farm was established near Asheboro, at a cost of approximately $20,000. More than 2,000 quail were raised the first season and wild turkeys and pheasants are also propagated. In the spring of 1928 the department imported 2,000 quail from Mexico and distributed them throughout the state.

The director of the Department of Conservation and Development, Wade H. Phillips, is at present acting game warden of the state.

North Dakota

North Dakota has created no state forests, and its state parks are more in the nature of historical parks than state parks. The primary purpose for park development in this state is centered around the preservation of historic sites and the provision of additional museums. Should the proposed Roosevelt National Park be made a state park, as has been suggested in many quarters, North Dakota would have a nucleus for the development of a state park system. While work for the preservation of the game of the state did not begin until 1909, excellent progress has been made and conditions are more favorable than they have been in many years. The department is desirous of purchasing land for game preserves when sufficient appropriations can be secured, and it is probable that these lands will be developed for recreation.

State Parks

The creation of the state park system in North Dakota began in 1916. It was placed under the supervision and control of the State Historical Society, which is administered by 21 directors. Each park is under the direct charge of a park board of three to five members appointed by the directors of the society. Any community, town, or county in the state may secure a state park by donat-

ing the land to the Historical Society for their formal approval and acceptance. The parks are maintained and improved through state appropriation.

The parks so far established are more in the nature of historical parks. They are developed primarily as community centers for the use of residents of the region. The native flora is preserved within their boundary, and they are also game preserves.

The general purposes outlined by the society for the creation of the present state park system are the preservation of historic sites, the provision of outdoor museums and of community centers in each county for public gatherings. The State Highway Commission cooperates with the society in making the state parks accessible. The society cooperates with the Fish and Game Commission in the establishment of refuges on the park areas.

The directors of the State Historical Society have requested the legislature to authorize them to name a state park commission of five members. This commission would have general charge of state parks, with the object of securing additional lands through purchase or condemnation. They recommend that the State Engineer and the chairman of the State Fish and Game Commission be ex-officio members of the State Park Commission, which would serve without pay. The commission has not been appointed.

There is some possibility that a large tract of land in the canyon of the Little Missouri River in the Bad Lands will be made a state park. The park will be a large one, since there are still in the custody of the General Land Office about 100,000 acres of land never filed on because it is too poor for agricultural use, and 25,000 acres of land filed on but reverted to Federal control since the homesteaders did not occupy it long enough to prove title. The Northern Pacific Railroad retains most of its grant lands in the region totaling approximately 60,000 acres. Another 25,000 acres of state school sections and lands which reverted to the state for nonpayment of taxes are available. There have been bills before Congress for a number of years to make a national park of this area, but they have failed of passage. Should the National Park Service definitely recommend against the creation of such national park, it is probable that the area will be made into a state park. A state park in the Bad Lands will become famous throughout the country. Besides its scenic beauty, it would offer a terrain suitable for the preservation of the old ranch life which fascinated Theodore Roosevelt. Much of its rugged area can best be enjoyed on horseback. A few ranchers have their homes in the bottom lands along the Little Missouri, and provide centers and means for saddle mounts and pack

horse exploration trips for which the intricately branching canyons are well fitted.

Profesor O. G. Libby, of the Department of American History at the University of North Dakota, is secretary of the State Historical Society, and is in active charge of state park work. Professor Libby's headquarters are at Grand Forks.

State Forests

The first forestry organization in North Dakota was created as far back as 1889. The building of the North Dakota School of Forestry was authorized in 1906 for the purpose of giving instruction in the science of forestry. In 1913 an act was authorized by legislative action, providing for the establishment of a state nursery, the creation of the office of State Forester, and the distribution of trees to citizens of the state.

There are no state forests in North Dakota. Probably the lack of interest in their creation is due to the small forest area of only 500,000 acres. With a total land area of 44,017,120 acres the original forest cover was only 640,000 acres.

No appropriations are made for forestry other than funds given the North Dakota School of Forestry and the State Nursery.

The state cooperates with the Federal Government under the Clarke-McNary Act, and, during 1928, will receive $2,000 for the distribution of forest planting stock and $1,500 for farm forestry extension work.

The State Forester is F. E. Cobb, who is also president of the North Dakota School of Forestry at Bottineau.

Game

Game work in North Dakota was rather late in beginning, since the Game and Fish Board was not established until 1909. The board was reorganized in 1911, and a second reorganization in 1917 resulted in the creation of the State Game and Fish Commission. The commission is administered by a board of three non-salaried members appointed by the Governor. The executive officer of the commission is the Game and Fish Commissioner, appointed by the Governor.

The Game and Fish Board has authority to purchase, lease, and manage state game farms, game refuges, game reserves, and game reservations, to propagate and preserve the game of the state, and to collect and publish statistics and information regarding the game of the state. The Game and Fish Commissioner is authorized to exercise in the name of the board, all power and authority vested in the board.

For enforcement of the game laws, the state is divided into two districts, each in charge of a chief game warden. Under these game wardens are deputy game wardens, district game wardens, and other special wardens who administer the game laws of the state. The commission has suggested that the game code be changed, and that the state be administered as one district with one chief game warden. A change is also recommended in the board, providing that members of the commission should be appointed by the Governor for a term of six years and should be paid a small annual salary for the work they accomplish.

A game refuge on privately owned land may be established, on written application to the Game and Fish Board, by the person or corporation owning or leasing the area. Such a refuge can not be created for less than ten years, nor can it contain less than ten acres. The land must be leased to the state during the time it is set aside. The owner or lessee must waive, in writing, all right of himself or members of his family to hunt, shoot, trap, or kill any birds or animals during the time this land is a game preserve. Similar refuges may be established on unsold public lands of the state, such refuges enduring until the land is sold by the state or the refuge canceled by the Game and Fish Board. Under the same terms, owners of land surrounding or adjoining a lake may lease the land and lake to the state for breeding, resting, and refuge places for water fowl. Such lands and lakes are set aside as game refuges, and it is unlawful to hunt within 150 feet of the boundaries outside the refuge.

All islands in the waters of Devils Lake are set aside as bird preserves, and it is unlawful to hunt, shoot, kill, wound, or injure any protected bird. There is also a state law against hunting in any national reserve or refuge.

Some years ago the department purchased a section of land in Morton County south of Mandan for use as a game preserve. The area has never been utilized for this purpose, and the secretary of the board recommends that the legislature amend the game laws and grant the board authority to dispose of the land.

The department recommends that the hunting license fee be increased to enable the purchase of land for duck passes and game preserves. Difficulty is encountered in creating such passes without buying or leasing ground, since the farmers are not aware that damage done by ducks eating grain is paid for by the department.

Game life in North Dakota is in more favorable condition than it has been for twenty years. During the past year the number of grouse and prairie chicken in the state has materially decreased, but ducks and geese are plentiful. Chinese pheasants and the Hun-

garian partridge have been propagated successfully. Antelope, moose, deer, and elk have complete protection, and may not be hunted, killed, or trapped within the boundary limits of the state.

The members of the Board of Game and Fish Commissioners are: W. C. Taylor, La Moure, N. Dak., president; M. A. Hoghaug, Devils Lake, N. Dak., vice-president; Dr. H. L. Rice, Beach, N. Dak., secretary. C. P. Peterson is Fish and Game Commissioner. The headquarters of the board are at Bisbee.

Ohio

Ohio has five distinct classes of areas which preserve scenic, historic, and forest lands, as well as provide protection for the wild life of the state. They are public parks, sometimes classified as state parks, state forests, forest parks, historic parks, and game preserves. These areas have been acquired in various ways, through gifts, purchase, legislative appropriations, the use of the method of appropriation, and through the use of receipts from the fishing and hunting licenses. They are administered by different departments of the state. The state forest parks have more of the development of a state park area than the unique reservoir lakes which are sometimes known as state parks.

Public Parks

The State of Ohio in 1825 undertook the construction of an immense canal system, which necessitated the impounding of a large portion of the run-off of the watersheds along these canals by the construction of artificial reservoirs. Six reservoirs of large area were completed between 1827 and 1844. The Paulding Reservoir, comprising about 1,200 acres, was abandoned and sold for a very small price. Most of the land through which the canal system ran is still owned by the state and is being leased. The rest, a relatively small quantity, being mostly the feeders to the main canal, reverted back to the original owners with the abandonment of the canals.

With the abandonment of these canals around 1900, there was a prospect that these fine bodies of water, which are now utilized as summer resorts, would be drained and sold for agricultural purposes. Through the effort of the State Board of Public Works and the Ohio Canal Commission, supported by civic organizations, the general assembly in 1902 passed legislation dedicating five of these reservoirs, containing approximately 35,000 acres, as public parks. The reservoir lakes preserved are Lake St. Mary's, of 15,500 acres; Indian Lake, 6,300 acres; Lake Loramie, 2,500 acres; Buckeye Lake,

4,000 acres; and Portage Lakes, comprising about 2,250 acres. These reservoir parks are under the control of the Department of Public Works.

Under the act creating these parks, the department was authorized to protect and maintain them, to construct roads, and to acquire property which might be necessary for use in constructing drives, roadways, docks, landings, wharves, or other improvements. Appropriation authority was granted for the acquisition of necessary land, the cost of the property to be paid out of funds especially appropriated for that purpose. The parks are all game refuges.

It has been impossible for the Department of Public Works adequately to develop the areas, since it does not receive sufficient appropriations. While authorized to make improvements, funds are not always available, since revenues from rentals, fees, etc., are placed in the general revenue fund and the appropriations for maintenance are small. It is only possible to employ a foreman and several police patrolmen for each reservoir.

The state property in the reservoirs usually included only the surface of the reservoir to the high water mark, so the lakes are surrounded by private developments in the form of cottages, hotels, dance halls, club houses, and amusement resorts. These private lands around the lakes have been laid out in streets, and several thousand summer cottages are located on them. Water and sewer systems are planned. The lakes are very popular, are extensively used, and are easily accessible by good roads.

The parks contain broad, shallow lakes, with limited channels for boats, and it has been necessary to enforce careful and detailed regulations for motor boats and sailing yachts.

The director of the Department of Public Works is Richard T. Wisda. His headquarters are in Columbus.

Historical Parks

Another type of area set aside in Ohio are the archæological and historical parks. These parks are administered by the Ohio State Archæological and Historical Society, incorporated in 1885. In 1891 a resolution was adopted by the general assembly, authorizing the appointment by the Governor of six persons to serve on the board of trustees of the society, thus making it an official state body. It was authorized to acquire and manage properties of archæological and historic interest. In the same year, 1891, Fort Ancient, a prehistoric earthwork, was placed under its control. In 1909 Spiegel Grove was acquired, the assembly making an appropriariation for the erection of a memorial building in the Grove in

1911. Since that time fourteen or more properties have been acquired by the society. Some of these are areas of considerable size, are used for picnicking and have been equipped for a limited degree of recreation. The state makes appropriations for their support. Mr. H. C. Shetrone is director of the State Archæological and Historical Society, with headquarters at the Museum and Library Building on the campus of the Ohio State University.

Forests

The first educational campaign to arouse sentiment for forest conservation in Ohio began in 1880. As a result the Ohio State Forestry Bureau was established by the general assembly in 1885. Because of the lack of appropriations, this bureau ceased to function in 1890. The Department of Forestry and the State Agricultural Experiment Station were created in 1906 and placed under the supervision and management of the Board of Control. The State Forester is the executive officer of the department.

It is the duty of the Board of Forestry to creat and administer state forests and forest parks; to inquire into the cause of the waste of forest lands; to work for woodlot improvement and farm forestry; and to protect the forests of the state from fire. An act authorizing the establishment of state forests and forest parks was passed in 1915, when the department was given authority to purchase lands suitable for such purposes at a price not exceeding $10 per acre.

Under legislation enacted in 1925, forest lands may be classified for taxation. Farm woods and forest lands receive a reduction of 50 per cent of the tax rate. All taxes may be removed on the timber itself. The tax reduction law applies to land in native forests and to land planted with trees and maintained for the production of timber crops. There is an excise tax of 5 per cent on timber stumpage when cut. One half of the tax goes to the county in which it is collected and the other half to the state for forestry purposes. The land classified under this provision can not be used for grazing purposes. The owner of such land may at any time withdraw it from classification, at which time he must pay tax at the full rate which would have been due had the land not been classified.

Ohio has five state forests with a total area of 32,241 acres, purchased at a cost of $171,740. The average cost was approximately $6 an acre. These tracts are under the charge of rangers, whose duty it is to build roads and trails, plant trees, conduct timber cutting operations, and protect the land against trespass and forest fires. The areas were originally made up of semi-wild and neglected timber land. Their use will be varied. They will demonstrate the

principles of conservation, will serve as a protective cover for the basins of streams, and will offer excellent recreational opportunities. Roads, trails, and shelter houses are under construction. The state forests yield a revenue to the state through the production of timber for commerce. They may be used for game refuges and, in part, for hunting.

Another class of preserve is the state forest park, which includes areas of outstanding scenic state importance, virgin forests, or unusual formations. A high standard is maintained for the forest parks. They represent the best of the state's scenery. No artificial development other than the construction of trails is permitted. Automobile roads will not be built within their borders. Ten parks have been created, of which only the Nelson Ledges is unsuited for recreational development, such as camping. A hotel owned by the state is operated in connection with this park. The parks include a number of cave and gorge formations of unusual character, with fine flora and large trees. A special appropriation was made for the development of Bryan Park in Greene County. The recreational facilities will be improved and 200 acres will be devoted to a forest arboretum for southwestern Ohio.

The existing forests and forest parks will be greatly extended during the next year, since $100,000 has been set aside for this purpose.

During 1927 over 175,000 trees were planted on the open lands of the state forest and forest parks, thus greatly increasing their usefulness. Abandoned lands within the state are also reclaimed through forest planting. Aid is offered landowners in reforesting old fields and gullied lands, formed by erosion. Forest plantations are gradually being established along the main highways of the state where they not only add beauty to the roads but serve as demonstrations to landowners. This tree planting campaign is believed to be an excellent method of interesting the public in state parks and forests.

The state appropriation for forest work in 1928 is $217,000.

Ohio cooperates with the Federal Government under the Clarke-McNary Act, and, during 1928, will receive $2,913 for forest fire protection, $2,000 for the distribution of forest planting stock, and $1,860 for farm forestry extension work.

The Board of Control of the Ohio Agricultural Experiment Station consists of Lawrence E. Laybourne, president, Springfield; Egbert H. Mack, vice-president, Sandusky; H. S. Atkinson, Columbus; Harry A. Caton, Coshocton; John Kaiser, Marietta; Mrs. Robert G. Paterson, Columbus; Julius F. Stone, Columbus; Charles V.

Truax, director of agriculture, Columbus; Carl E. Steeb, secretary, Columbus.

Edmund Secrest is associate director of the Experiment Station and State Forester. Headquarters of the department are at Wooster.

Game

Ohio has developed a constructive program for the protection of her game. This work began in 1886, when jurisdiction of the Commissioner of Fisheries was extended to game. In 1913 the Agricultural Commission was established, and was reorganized in 1915 into a Board of Agriculture. The secretary of the Board of Agriculture was given jurisdiction over game, birds, and fish in 1917. He has authority and control in all matters pertaining to the protection, preservation, and propagation of game, and is directed to enforce by proper legal action the state laws for their protection.

Direct supervision of game and fish work is vested in the Chief of the Division of Fish and Game, who is appointed by the Board of Agriculture. The chief of the division is charged with the enforcement of the provisions of the Game Code and all other laws relating to game birds, fish, and fur-bearing animals. He is assisted by an assistant chief, a Lake Erie supervising protector, and such number of fish and game protectors and special fish and game protectors as the board may appoint. These officers have the authority of sheriffs in making arrests and may enter upon private lands or waters for the purpose of carrying out the provisions of the act. Sheriffs, constables, marshals, and other police officers have the same authority to enforce the game laws that is conferred on the wardens.

The Division is self-supporting, since it is financed from revenue received from the sale of hunters' licenses, licenses on nets for fishing in Lake Erie, rod and reel licenses, and nonresident fishing licenses. Receipts from Lake Erie licenses may be used only for the betterment and propagation of fish therein, while the remainder of the fund is used for general purposes of the division. At least 50 per cent of the fund is to be expended for the purchase and propagation of game birds and game animals used in restocking and for the establishment and purchase of lands for game preserves.

The Director of Agriculture has authority to establish state game refuges by leasing privately owned land for the nominal consideration of $1 per year. These leases are taken for a period of from five to ten years. The department plans to maintain from 2,000 to 2,500 acres of refuge territory in each county, each refuge to consist of from 400 to 500 acres. Such use does not interfere with the

landowner's title or his use of the land. Any land which is included in these refuges must have natural woodland and cover for the protection of game, and sufficient water. They are real sanctuaries, and hunting, shooting, and trapping are prohibited. Refuges have been leased in 81 counties, comprising approximately 127,000 acres of protected territory. This acreage is as follows: Adams County; Allen County, 2,909 acres; Ashland County, 623.32 acres; Ashtabula County, 1,681.32 acres; Athens County, 2,339.61 acres; Auglaize County, 2,655 acres; Belmont County, 2,170 acres; Brown County, 1,000 acres; Butler County, 2,205 acres; Carroll County; Champaign County, 1,756 acres; Clark County, 2,867.31 acres; Clermont County, 1,980.04 acres; Clinton County; Columbiana County, 1,371 acres; Coshocton County, 1,245.74 acres; Crawford County, 599 acres; Cuyahoga County, 1,764.25 acres; Darke County, 1,703 acres; Defiance County, 1,265.65 acres; Delaware County, 837 acres; Erie County, 2,656 acres; Fairfield County, 711 acres; Fayette County, 467 acres; Franklin County, 1,073 acres; Fulton County, 2,276 acres; Gallia County, 1,955 acres; Geauga County, 1,107.41 acres; Green County, 1,086 acres; Guernsey County, 1,060 acres; Hamilton County, 678.55 acres; Hancock County, 1,823.59 acres; Hardin County, 1,773.89 acres; Harrison County, 822 acres; Henry County, 2,306 acres; Highland County; Hocking County, 2,778 acres; Holmes County; Huron County, 1,133 acres; Jackson County, 2,348 acres; Jefferson County, 878.18 acres; Knox Couty, 1,124.77 acres; Lake County, 130 acres; Lawrence County, 2,194.31 acres; Licking County, 1,939 acres; Logan County, 2,203 acres; Lorain County, 1,643 acres; Lucas County, 127 acres; Madison County, 1,811 acres; Mahoning County; Marion County, 1,648 acres; Medina County, 2,786 acres; Meigs County, 250 acres; Mercer County, 400 acres; Miami County, 2,920 acres; Monroe County, 1,992 acres; Montgomery County, 1,222 acres; Morgan County, 709 acres; Morrow County, 2,389 acres; Muskingum County, 1,154 acres; Noble County; Ottawa County; Paulding County, 1,104.46 acres; Perry County, 1,447 acres; Pickaway County, 1,002 acres; Pike County, 1,100 acres; Portage County, 1,000 acres; Preble County, 479.30 acres; Putman County, 2,179 acres; Richland County, 679.65 acres; Ross County, 2,308 acres; Sandusky County, 2,165 acres; Sciotom County, 15,900 acres; Seneca County, 560.23 acres; Shelby County, 674 acres; Stark County, 1,091.50 acres; Summit County, 1,315.02 acres; Trumbull County, 1,909 acres; Tuscarawas County, 68 acres; Union County, 309 acres; Van Wert County, 2,738 acres; Vinton County, 540 acres; Warren County, 143 acres; Washington County, 719 acres; Wayne County; Wood County,

1,544 acres; Williams County, 1,761.4 acres; Wyandot County, 602.70 acres.

The Secretary of Agriculture has authority to acquire by gift, lease, or purchase, lands for public grounds and reforestation. On recommendation of the chief of the Fish and Game Division, any portion of an established public hunting ground may be set aside as a state game refuge. When it is deemed necessary to procure lands for reforestation or the establishment of public hunting grounds, and the Secretary of Agriculture and the owners of such lands are unable to agree upon their purchase and sale, they may be taken through appropriation. A declaration of the intention to appropriate such property for the state must be issued. The payment of costs and the compensation awarded the property owner must be made from moneys in the state treasury to the credit of the hunters' and trappers' license funds.

Only one state-owned game preserve has been established. It is the Roosevelt Game Preserve of 8,600 acres in Scioto County, northwest of Portsmouth. The preserve contains a 400-acre ring-neck pheasant farm. Turkey, deer, and mallard ducks are also propagated. It also contains an interesting miniature zoo, consisting of raccoon, foxes, deer, black bear, and pheasants of various kinds.

All lakes, reservoirs, or state lands dedicated to public use are game refuges, and authority to protect the birds, fish, and game within their confines is conferred on the Secretary of Agriculture. All laws for the protection of birds and game apply to these areas.

The chief of the Fish and Game Division recommends the establishment of ideal preserves which would consist of a wild life exhibit of native animals, a natural history sanctuary, camping sites, and a wild life experiment station.

Charles V. Truax is director of the Department of Agriculture and D. O. Thompson is chief of the Division of Fish and Game. The headquarters of the department are in Columbus.

Oklahoma

The former Indian Territory, a vast plain of rolling prairies, rising from an elevation of 400 feet in its southeastern corner to nearly 5,000 feet in its northwestern extremity, has many possibilities for recreation. With its recent growth of population the need of areas for outdoor play has developed. The hills of eastern Oklahoma, the Ozark Mountains in the northeast, the Ouachita Mountains in the southeastern part of the state, and the Arbuckle Mountains in the southwestern part, contain many undeveloped spots of potential recreational value and of striking beauty.

Oklahoma still has some public lands in the western part of the state, but they are mostly of little scenic value. As yet no state parks or forests have been created, though three game preserves have been acquired.

There is a possibility that the one national park in the state, the Platt National Park at Sulphur, may be turned over to the state by the Federal Government for administration as a state park. This plan has been discussed for several years, since the park is not comparable in size and scenic beauty with the other members of the National Park System. It contains only 840 acres. The chief attraction is its mineral waters which bring many visitors from adjoining states as well as from Oklahoma.

State Forestry

Approximately one-third of Oklahoma's original forested area has been cut. Of an original forest cover of 12,000,000 acres, only about 8,000,000 remain. Realizing the need for immediate action the legislature of 1925 passed two important forestry measures. One law provided for the creation of the Oklahoma Forest Commission; the other declared an emergency existed and empowered the United States to acquire lands in the state if in the opinion of the Federal Government they were needed for the establishment of forests in the state.

The Forest Commission was established to conduct an educational campaign for the conservation of forests, the reforestation of land, and the creation of general forest interest. Under the law it is composed of three persons appointed by the Governor, in addition to the president of the State Board of Agriculture and the president of the Oklahoma Agricultural and Mechanical College.

The authority of the commission was extended in 1927, when the legislature empowered it to accept and purchase tracts of land for state forests and parks, experimental or nursery purposes. No appropriation was made for the purchase of lands and no state parks or forests have been acquired.

The commission is carrying on a widespread educational campaign calling attention to the need of planting trees in the state. Publications have also been issued describing the forest trees.

The most successful accomplishment has been the establishment of fire protection on 1,312,000 acres in southeastern Oklahoma. This was done with the aid of private agencies and the Federal Government. A small forest tree nursery, in which there are about 250,000 seedlings, has also been developed in cooperation with the U. S. Forest Service. The nursery is located on the grounds of the Agricultural and Mechanical College at Stillwater.

Oklahoma cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $13,710 for fire protection, and $2,000 for the distribution of forest planting stock.

For the expenses of the commission $5,000 was appropriated for each year of the biennium 1925 to 1927. The state appropriation for each year of the biennium 1927-29 for forestry work is $15,000.

The members of the Forest Commission are: Harry B. Cordell, president of the State Board of Agriculture; Dr. H. G. Bennett, president of the Agricultural and Mechanical College, Stillwater; Mrs. V. B. Gorman, John F. Easley, and John M. Craig. George R. Phillips is the secretary of the Commission and State Forester, with headquarters at the State Capital, Oklahoma City.

Game

The game authorities realize the value of the development of areas under their jurisdiction for recreation. They are making real progress in this direction. The stocking of the leased and state-owned areas with game, however, is proceeding slowly due to the lack of sufficient funds. Oklahoma is badly in need of a game farm. It will require quite an expenditure to buy and import the game necessary for restocking the state. Its lands are now only slightly stocked with game.

Game work began in 1899 with the creation of the office of State Game and Fish Warden. The office was reorganized in 1909, and again in 1913, when a State Game and Fish Commission was created, consisting of the Governor, the Secretary of State, and the State Game and Fish Warden. The conservation program was expended in 1925, when the legislature passed constructive and progressive fish and game laws, and once more changed the administrative agency. The commission is now composed of three commissioners, with the State Game and Fish Warden in charge of game work.

Realizing the enforcement of game and fish laws is apt to arouse antagonism the commission is endeavoring to create a cooperative spirit in the public, and is devoting limited time and expense to the apprehension of violators of the regulations. An intensive educational campaign is carried forward. Motion picture films showing outdoor Oklahoma are exhibited in a great many of the rural schools, as well as in the principal motion picture theaters. The schools are visited and the need for the conservation of fish and game and all resources of the state is outlined to the pupils by representatives of the department. The entire state will be covered.

For operating purposes the state is divided into ten districts, each in charge of two game rangers.

Game refuges have been established in 39 counties in the state. These refuges are secured by making a lease for a term of ten years or more with land owners. They are used as breeding grounds and are stocked with ring-neck pheasants, prairie chicken, wild turkey, bob white quail, and both whitetail and blacktail deer. When thoroughly stocked game will be trapped on the refuges and planted on unposted land in the same county. Refuges will be established in every county in the state. Leases which have been established are:

Atoka County, 4,960 acres; Beckham County, 10,400 acres; Blaine County, 1,600 acres; Carter-Murray County, 10,880 acres; Custer County, 5,120 acres; Cimarron County, 800 acres; Cleveland County, 1,760 acres; Comanche County, 3,860 acres; Canadian County, 3,560 acres; Cotton County, 3,520 acres; Greer County, 6,300 acres; Jackson County, 2,080 acres; Jefferson County, 3,120 acres; Kiowa County, 3,840 acres; Kiowa County, 8,160 acres; Kay County, 5,600 acres; Le Flore County, 3,040 acres; Le Flore County, 640 acres; Latimar County, 4,600 arces; Mayes County, 300 acres; Marshall County, 3,260 acres; Noble County, 3,680 acres; Osage County, 17,440 acres; Oklahoma County, 1,840 acres; Oklahoma County, 1,000 acres; Payne County, 960 acres; Pittsburg County, 1,420 acres; Rogers County, 330 acres; Pontotoc County, 10,736 acres; Texas County, 18,570 acres; Washita County, 6,112 acres; Washington County, 3,820 acres; Washington County, 1,110 acres; Kingfisher County, 5,040 acres.

Land for the establishment of two game preserves has also been leased. These leases have been secured in the past three years and cover the Kay County Preserve near Ponca City, and the Washington County Preserve near Bartlesville. No hunting is permitted on either preserve except for predatory animals and birds which destroy wild life. Fishing is permitted on both refuges.

Three state-owned game preserves have been created, the first in 1920. They were purchased through funds acquired by the sale of hunting and fishing licenses. Developed for recreation they offer excellent opportunities for the enjoyment of outdoor life. Areas for similar purposes will be purchased should plans of the game and fish commission be carried out, since it expects to purchase small tracts along highways and on creeks and lakes and build camp houses, thus establishing a series of public parks and camp grounds.

The members of the commission are: S. H. Harris, Oklahoma City, chairman; M. H. Shepard, Chickasha, secretary, and O. P. Slack, Atoka. The State Game and Fish Warden is Ray O. Weems, and his headquarters are in Oklahoma City.

Oregon

Though fortunate in the possession of the famous Crater Lake National Park and 13,000,000 acres of national forests, this state has undertaken the preservation of other of its scenic beauties through the establishment of state highway parks and the preservation of its remaining forests. The protection of its game is also advanced through its game laws and the establishment of game refuges.

Oregon is in the beginning of the heaviest exploitation of its natural resources. Its park possibilities should be preserved before the best of its areas are lost. Rapid strides are being made, however, in all three phases of outdoor activity—parks, forests, and fish and game.

State Parks

A novel method of administration of state-owned parks is in force in Oregon. Here the parks are under the charge of the State Highway Department. An act of 1925 gave the department authority to "acquire by purchase, agreement, gift or by the exercise of eminent domain, lands or property for the culture of trees and the preservation of scenic places adjacent to and in close proximity to state highways and for parks, parking places, camp sites, public squares and recreation grounds," and to "improve, maintain and supervise the same and to expend state highway funds for such purpose."

The cost of acquisition, development and maintenance of park areas is paid out of state highway funds in the same way other claims are paid. The State Highway Commission also has absolute right of eminent domain, and any decision it makes that an area is necessary for park purposes is final.

The areas of the twenty-nine highway parks which have been acquired vary from less than an acre to over two hundred acres. Fourteen have been donated to the state, the remainder purchased, with condemnation used in one instance—the Emigrant Park. A part of the Peter Skene Ogden Park was acquired through an exchange of school lands. Several areas have been developed for camping. Located on Oregon's beautiful highways, the areas are all scenic, many of them offering remarkable views of the surrounding country.

Fortunately the State Highway Commission has secured many strategic areas and now has in mind the acquisition of larger and more important parks. It has a practical conception of the purpose of state parks and any larger additions will ultimately be developed for extensive use. That the commission has the backing of the

public is shown by the adoption by the last state meeting of the American Legion of a resolution to make the creation of state parks one of their main endeavors for the coming year.

Desirable lands for recreational purposes, practically all timbered areas, are included in the Oregon and California and Coos Bay Wagon Road grant lands. Many of the principal highways pass through sections of these tracts, making them easily accessible. To secure them it was necessary to obtain an amendment to the recreation act passed by Congress, June 14, 1926, which provides for the sale at a nominal price, or lease, to the state of unreserved public domain classified as chiefly valuable for recreational purposes. An amendment to this act was introduced in this session of Congress by Congressman Sinnott, the passage of which now makes it possible for the Highway Commission to secure larger park areas.

The State Highway Commission is composed of H. B. Van Duzer, chairman, Portland; Robert W. Sawyer, Bend, and C. E. Gates, Medford. Roy A. Klein is State Highway Engineer and the headquarters are in Salem.

State Forests

The first forestry organization in the state was established in 1907. At that time an annual appropriation of $500 was made to carry on the work. In 1911 an entire new forest code was passed by the legislature, vesting forestry matters in a State Board of Forestry of seven members. The appointment of a state forester was authorized, his duties prescribed, and $60,000 appropriated for the biennium for carrying on the work. In 1925 this code was repealed and a new one adopted. Under the new code it is more difficult for violators of the forest laws to escape through technicalities, which was the principal reason for its revision. The work remains under the direction of the forestry board, with the state forester in charge.

A large proportion of the merchantable timber remaining in the United States is in Oregon, so the importance to the state of the protection of this timber is easily realized. Ninety per cent of the forestry work is fire protection. The state has one of the finest protective systems in the country. Practically every acre of forested land is looked after by some oganization. Under the law all owners of timber land must provide a patrol for the land, or the work can be done by the state forester who collects the cost as taxes are collected. Legislation was recently passed making owners or operators of land responsible for starting fires also responsible for their suppression even though the fire spreads to other lands.

The state cooperates with the Federal Government under the Clarke-McNary Act and during 1928 will receive $44,242 for fire protection and $2,000 toward the distribution of forest planting stock.

The Federal Government and private individuals own a large proportion of the forest land in Oregon. Over 13,000,000 acres are under Federal control. Private holdings comprise about 10,000,000 acres. The state which at one time was the owner of a vast acreage of forested land, now holds title to less than one per cent of the total forested area. There are approximately 2,650,000 acres of cut-over land, which is being increased through logging operations at the rate of 130,000 acres annually.

The state forester recommends three steps to place Oregon's forests on a proper basis: Provide the department with sufficient funds adequately to police the forested areas and to better administer the forest laws; second, the passage of legislation designed to promote the practice of private forestry; third, the purchase by the state of state forests for reforestation purposes.

The state forester is charged with the protection of approximately 10,500,000 acres of forest land—8,295,700 acres of privately owned land, 1,234,300 acres of revested Oregon and California railroad grant lands, and 970,000 acres of unappropriated public domain classed as timber land. This area is divided into twenty protective districts with a warden in charge of each. Fifteen of the districts are conducted by associations composed of timber owners within their confines. The remaining districts are administered by the state forester, and funds are collected in these districts through forest patrol assessments. The Oregon and California grant lands bear their pro rata share of the costs.

An exchange of lands in process since 1919 will provide Oregon's first state forest when consummated. Like other western states, Oregon negotiated with the Forest Service for the exchange of its school section forested lands within the national forests for equivalent compact areas. In 1920 the state owned approximately 70,000 acres within the national forests—37,000 acres in eastern Oregon and the remainder in the western part of the state. After thorough investigations by both Federal and state officials land located in Coos and Douglas counties, south of the Umpqua River, known as the Millicoma tract, was chosen as the best selective area. When this exchange is finally ratified it will give the state a tract of land highly valuable as a potential forest. Modern forestry will be practiced. Undoubtedly recreational use of the forest will be developed, since it is located in a region where the Douglas fir forest is of the finest type.

The members of the board of forestry are: Governor I. L. Patterson, chairman, Salem; George W. Peavy, Corvallis; G. A. Palmiter, Hood River; C. M. Granger, Portland; George L. McPherson, Portland; George T. Gerlinger, Dallas, and Ernest F. Johnson, Wallowa. F. A. Elliott is state forester, with headquarters in Salem.

Game

Effort for the conservation of game resulted in 1893 in the establishment of the office of game and fish protector. The substitution of the office of game and forestry warden followed in 1899, and game work was administered by this warden until 1911. In that year the Board of Fish and Game Commissioners was established. The board was reorganized in 1915. It was replaced in 1921 by the State Game Commission.

The game commission consists of five members appointed by the Governor. For the purposes of administration the state is divided into two game districts, one the portion of the state land lying east of the Cascades, the other of land lying to their west. Under the law two of the commissioners are appointed from each of these districts, with one member from the state at large. The members of the commission receive no compensation except a per diem of $5 each while in actual attendance at meetings of the commission—the total of which can not exceed $200 in one year for each member. They are also allowed their actual traveling expenses.

The office of game warden was created by the act of 1921. The warden is appointed by the commission for a term of five years. Subject to the control of the commission he has supervision over the protection and propagation of game. The state game warden and all deputy game wardens are vested with the authority of a sheriff in carrying out the game laws of the state. Deputy game wardens are appointed by the commission.

A game protective fund is made up of funds received from the sale of licenses and from gifts. One half the money collected for violations of the game laws is also deposited in this fund. The other half is held by the treasurer of the county in which it is collected. The state game fund is deposited with the state treasurer.

The Governor is authorized by special proclamation to set aside any land or lands owned by the state and surrounding state institutions to be used as wild bird and game refuges. Immediately upon the creation of such preserves it becomes unlawful for any person to in any way interfere with game within their confines. When an area has been deemed appropriate for a refuge the state game warden may enter into written contracts with the owners of the land for a term not to exceed ten years. He has authority to

use moneys in the game fund necessary for the payment of rental, the purchase of birds, the maintenance of the refuge, and the protection of the game.

The following reservations have been created:

Multnomah County Reservation, Multnomah County.
Deschutes Game Reservation, Crook and Lake counties.
Sturgeon Lake Game Refuge.
Grass Mountain Reservation, Lane County.
Oregon Caves Game Refuge, Josephine County, 30,000 acres.
Salt Creek Game Refuge, Lane County.
Umatilla County State Game Refuge, Umatilla County.
Wallowa Mountain Sheep Refuge, Wallowa County, 45,000 acres.
White Tail Deer Game Refuge, Douglas County.
Cow Creek Game Refuge, Douglas County.
Lake County Mule Deer Refuge, Lake County.
Umatilla County Game Bird Refuge, Umatilla County.
Carlton Lake Game Reservation, Yamhill County.
Warner Game Refuge, Malheur and Harney counties.

The Warner Game Refuge was set aside primarily for the protection of the antelope in that section of the country. It is conservatively estimated that there are not less than 30,000 antelope in this refuge. This refuge is, however, as are all of the refuges in Oregon, set aside as a sanctuary for all the wild animals and birds within its boundaries.

In addition to the game refuges listed above which were set aside by the legislature, 112 game refuges have been created by agreements between the game commission and the owners of lands set aside for this purpose. These refuges are distributed throughout the state.

The members of the State Game Commission are: M. A. Lynch, chairman, Redmond; M. F. Corrigan, McMinnville; C. E. Miller, Portland; Ben F. Dorris, Eugene; L. A. Wright, Union. Harold Clifford is State Game Warden and his address is Pittock Block, Portland.

Pennsylvania

In Pennsylvania remarkable progress has been made in the preservation of the state's scenic places, of its forest lands, of its game, and in the provision of recreational opportunities in such areas. Pennsylvania ranks second only to New York in the area of its state-owned lands consisting principally of state forest lands. It is said to have the best system of game protection in the United

States. Recreational opportunities are provided on each type of area—public shooting grounds surround the game preserves and forest parks, and public camp ground areas are reserved in the state forests. The state parks have less recreational development, since they are set aside primarily for their historic connections. The latest state park to be created, the Cook Forest Park, will be the first state park to provide many recreational facilities.

Each phase of outdoor activity in the state is under a separate administration. Game work is under the charge of the Board of Game Commissioners; the Department of Forests and Waters has charge of state forests; and state parks are under commissions created for that purpose, with the exception of the latest addition to the system, the Cook Forest State Park, which was placed under the Department of Forests and Waters. The executive officer of this department, however, is an ex-officio member of each state park commission. The department also has fiscal control of the parks.

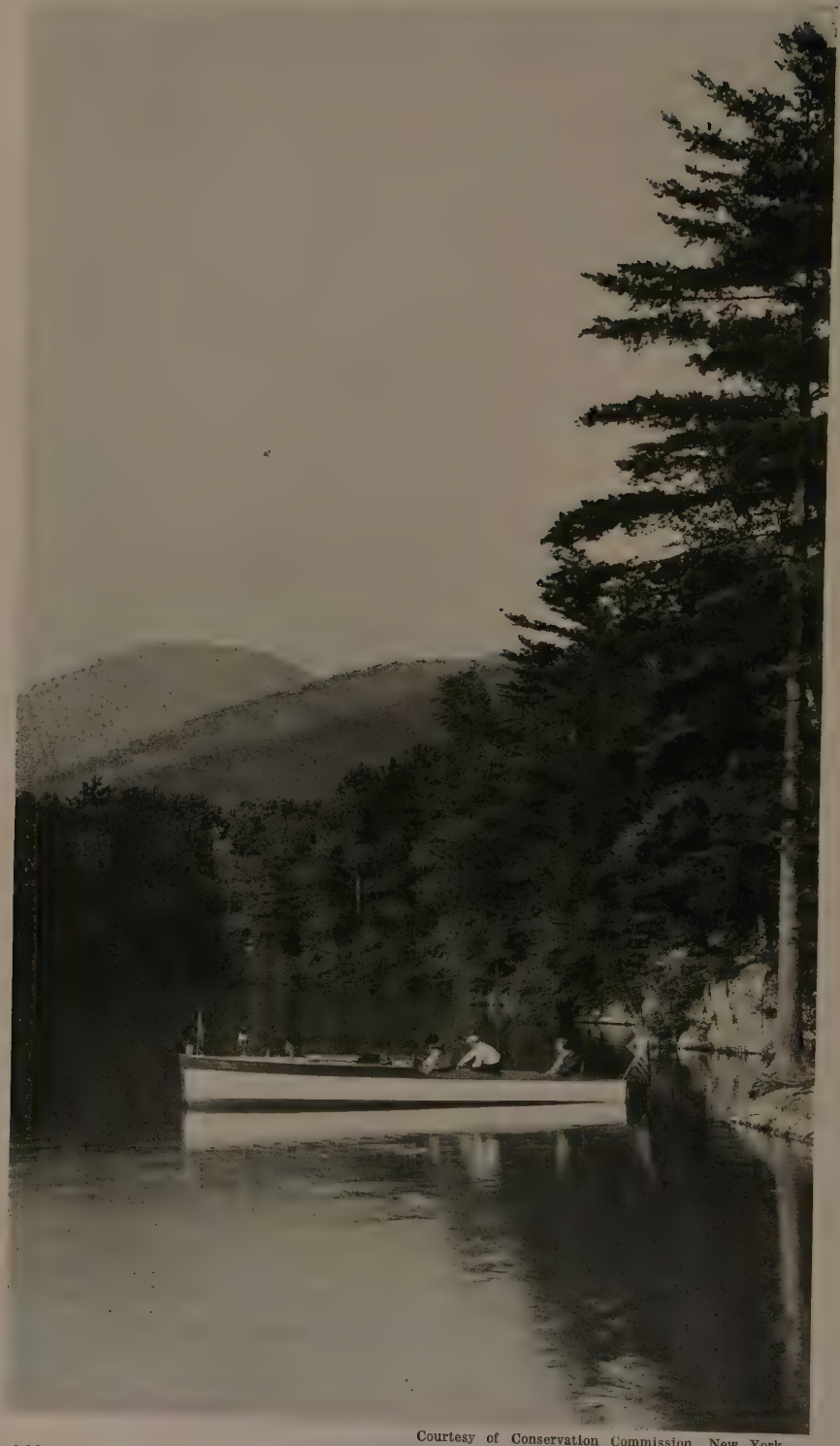
State Parks

In Pennsylvania there is no general enabling act for the purchase of state park land. They are created by special acts of the assembly, and in the past have been placed under the administration of separate nonsalaried commissions appointed by the Governnor. Each commission has authority to acquire additional land by gift, purchase or condemnation. The Department of Forests and Waters in 1923 was given fiscal control over the state parks and the secretary of the Department of Forests and Waters was made an ex-officio member of each of the state park commissions.

There are five state parks with a total area of 9,700 acres. All of these parks commemorate some historical event.

Valley Forge Park, set aside in 1893, was the first state park created. This was followed in 1915 by the creation of Fort Washington Park. Washington Crossing State Park was established in 1917, the Pennsylvania State Park in 1921, and the Bushey Run State Park in 1927. With the exception of the Pennsylvania State Park, which was transferred to the state by the War Department, and the Fort Washington Park, these areas were all purchased by the state.

A portion of the Fort Washigton Park was donated to the state. The Fort Washington Park Commission is composed of members of the Fairmount Park Commission of Philadelphia, which was authorized to make surveys for the remainder of this park and to acquire land up to 1,100 acres, title to which will be vested in the state. The park now includes 166 acres. Up to this time the state has appropriated $341,750 for its acquisition and maintenance



Courtesy of Conservation Commission, New York.

MOTOR BOATING—A SPORT OF THE RICH BROUGHT TO ALL OF US—PARADISE BAY LAKE GEORGE, NEW YORK

The Pennsylvania State Park was established through the cooperation of the United States War Department, which in 1921 transferred the area to the state without cost. It was here that Commander Perry's fleet was constructed before the naval battle of Lake Erie. The state appropriated $235,000 and the city of Erie $75,000 for the development of the park. The state has made an appropriation of $130,000 for the biennium. The park will be developed for recreation, a bathing beach is under construction, and a harbor for small boats and other facilities will be provided.

The Washington Crossing State Park commemorates the site on which the Continental Army was assembled on the night preceding the battle of Trenton, December 25, 1776. The place of embarkation, the old Ferry House, and other properties, including 1,200 feet of river front, have been purchased. The acquisition of an area of 500 acres was recommended, but only 320 acres have been acquired. While the park will be maintained in as nearly as possible its original condition and was purchased for its historical interest, it will be developed for public use, including bathing facilities on the river. The total appropriation by the state has been $446,000.

The Valley Forge State Park is located along Valley Creek, the site occupied by the Continental Army in the winter of 1777-78. More than $2,000,000 has been appropriated for its purchase and improvement.

The Bushey Run Park was acquired under authority of an act of May 4, 1927. One of the most decisive engagements of American colonial history, in which the Indians were defeated by Colonel Henry Bouquet, occurred here in August, 1763.

While none of these parks were created as places for recreation, the demand for outdoor pleasure has necessitated their development with that use in view. Roads and trails have been built and boating and bathing facilities provided. They will probably be more extensively developed as funds are available.

For a number of years there was an effort to secure funds through private subscription to purchase and donate to the state as a park, 8,000 acres of virgin pine and second-growth hardwood known as the Cook Forest. The land is located near Clarion at the junction of Clarion, Jefferson and Forest counties. The plan was fostered by the Cook Forest Association, of which Mr. Thomas Liggett, of Pittsburgh, is secretary. This effort culminated in 1927 in the passage by the legislature of a law appropriating $450,000 for the acquisition of land. The Cook Forest Association offered to pay $100,000 of the purchase price of the area on the appropriation by the state of $550,000 for its acquisition. The action of the

legislature made it necessary for the association to raise $200,000 for acquisition; $100,000 of this sum was available at the time the act passed, and the entire amount is now available. The ancient pines of this forest are estimated to be from 300 to 400 years old, and some of them have a clear rise of 125 feet to the first limb. The tract is the last large stand of virgin white pine in the state. The Clarion River runs through the forest, as do a number of small streams. Rhododendron and mountain laurel cover the roadside and hillside. There are trout streams, ranges for deer, bear and grouse. Many trails wind through beautiful wooded and flowered glens. The acquisition of this area will give Pennsylvania a state park of the first rank—easily accessible by railroad and highway. Paths and roads will be built. No hunting will be permitted. The park will be under the administration of the Department of Forests and Waters.

The various state park commissions consist of the following: Valley Forge State Park Commission—Isaac R. Pennypacker, chairman, Ardmore; Col. William A. March, secretary, Norristown; John R. K. Scott, Philadelphia; M. T. Phillips, Pomeroy; Theodore Lane Bean, Norristown; Albert Cook Myers, Moylan; W. Herbert Burk, Valley Forge; Fred F. Hallowell, Wayne; William Provost, Jr., Chester; Richard H. Koch, Pottsville; Mrs. Jennie C. Ritter, Allentown; Isaac H. Clothier, Jr., Villa Nova; Joseph E. Widener, Philadelphia, and Charles E. Dorworth, Harrisburg.

Fort Washington State Park Commission: E. T. Stotesbury, president, Philadelphia; Eli K. Price, vice-president, Philadelphia; S. W. Keith, treasurer, Philadelphia; Thomas S. Martin, secretary, Philadelphia; John A. Vogelson, Philadelphia; James Elverson, Jr., Philadelphia; Theodore Justice, Philadelphia; Charles B. Penrose, Philadelphia; Emory McMichael, Philadelphia; Joseph Widener, Elkins Park; W. Findlay Brown, Philadelphia; Robert Glendinning, Philadelphia; Charles B. Hall, Philadelphia; W. Freeland Kendrick, Philadelphia; Alexander Murdock, Philadelphia; Charles W. Neeld, Philadelphia, and Charles E. Dorworth, Harrisburg.

Washington Crossing State Park Commission: Harman Yerkes, chairman, Doylestown; W. Clayton Hackett, secretary, Easton; Henry Y. Pickering, Yardley; Samuel C. Eastburn, Langhorne; William D. Ridgway, Bethayres; Allen W. Hagenbach, Allentown; Louis Hitchler, Oxford; Edwin B. Malone, Philadelphia, and Fred B. Bernerd, Allentown.

Pennsylvania State Park Commission: P. J. Grant, president, Erie; P. D. Wright, vice-president, Erie; Frank M. Wallace, treasurer, Erie; George K. Frank, secretary, Erie; Charles E. Shenk, Erie; S. A. Sisson, Erie; J. A. Wurzbach, Erie; James Thomas, Erie;

John J. Mead, Erie; N. R. Buller, Harrisburg; James F. Woodward, Harrisburg, and Charles E. Dorworth, Harrisburg.

Bushey Run Park Commission: John Hamburg, Irwin; John P. Archibald, Blairsville; Gen. Richard Coulter, Jr., Greensburg; Harry F. Bovard, Greensburg; Robert W. Smith, Greensburg, and C. M. Romberger, Jeannette.

State Forests

Originally practically all of Pennsylvania's land area of 28,692,480 acres was covered with excellent forest growth. In the early days there were heavy stands of the choicest white pine, hemlock, cherry, oak, and other important timber trees. There still remain a little over 13,000,000 acres of forest land, of which the state owns 1,133,050 acres. Not more than 25,000 acres of the original forest remains.

Interest in the protection of this forested land began first in 1877 when the late Dr. Joseph T. Rothrock, who has been called the father of forestry in Pennsylvania, began the historic Michaux lectures in forestry at the University of Pennsylvania. In 1886 the Pennsylvania Forestry Association was organized. To study and report on forest conditions commissions were appointed by Governor Beaver in 1888 and Governor Pattison in 1893. In 1895 a Division of Forestry was created in the Department of Agriculture and Dr. Rothrock became commissioner of forestry. A Department of Forestry was established in 1901. In 1920, when Gifford Pinchot was at its head, the department was completely reorganized for administrative purposes. The entire state was divided into forest districts and a district forester placed in charge of each. Comprehensive plans of development were prepared. Close cooperation was secured with timber land owners, railroad companies and industries for the prevention and control of fires. The reorganized Department of Forestry and the Water Supply Commission of Pennsylvania were merged in one department by the administrative code of June 7, 1923, resulting in the formation of the present Department of Forests and Waters.

At the head of the Department of Forests and Waters is the secretary of forests and waters and the deputy secretary, who is also the state forester. The department is made up of nine bureaus—those of forest protection, forest management, forest parks, forest extension, lands, waters, technical education (state forest school), research and information, and accounts. The state is divided into twenty-four forest districts. Twenty-one of these districts contain state forest land. Under each district forester there are assistant

foresters and other helpers, and in districts which contain state forests there are forest rangers and laborers. All foresters are graduates of recognized forest schools. The department now has fifty technically trained foresters and seventy-nine forest rangers.

The state-owned forest lands are now yielding a considerable income to the state through the sale of lumber, poles, fuel wood, minerals, rentals, leases, and other privileges. A proportion of the income goes into the state school fund and is a big factor in maintaining the schools. The total income from the state has amounted to $701,138, of which $427,462 has been deposited in the school fund. The department anticipates that this income will increase materially as the forests become more mature and the cutting operations more extensive. During the last fiscal year the total receipts were $96,000. The state-owned forests, purchased for a little less than $9,000,000, now have a value in excess of $14,000,000.

Pennsylvania has an excellent fire prevention system which has been greatly strengthened in the past few years. There are 116 observation towers in use throughout the state, connected by telephone with the district forester and forest ranger headquarters. The protection organization consists of 50 trained foresters, 79 forest rangers, 55 forest inspectors, 109 observers, and 4,000 forest fire wardens. The inspection and removal of fire hazards is given special attention. The protection of the forests from fire is one of the main activities of the department and is not confined to state forests but extends to all privately owned forest land in the state.

Realizing the importance of demonstrating in a practical way the value of forestry to forest land owners the department has established special demonstration areas in all sections of the state. The first of these areas was established in 1903 in the Mont Alto State Forest in Franklin County. There are now many demonstration areas throughout the state and eventually suitable areas will be established in all of the state forests. Valuable technical information is obtained from these demonstration areas. Many phases of forestry work are covered. Numerous sample plots are maintained in forest plantations and selected forest types.

Auxiliary forest reservations have been established in accordance with a yield tax law passed in 1913. Private lands devoted exclusively to growing trees may be so classified on application to the department. The land is then assessed at $1 per acre. The timber is cut when mature and a tax of 10 per cent of the stumpage value of the trees cut is levied ninety days after harvest. This tax is distributed to county and township funds for roads, schools, and county purposes. To retain the classification of such lands, measures for their reforestation must be immediately undertaken after cut-

ting. The removal of timber and maintenance of these forests shall be in accord with approved methods of forestry practice recognized by the State Forest Commission.

Pennsylvania ranks second to New York in the size of its tree-planting program. From 1923 to 1927 practically 2,000,000 trees were planted on the state forests, and over 30,000,000 trees from state forest nurseries were planted on privately owned land. The planting stock is sold at cost of production. The annual demand for trees for planting by private owners is approaching 15,000,000.

The purchase of forest land was first recommended by Dr. Rothrock. He believed such action important for the production of a future timber supply, for the maintenance of forest cover on watersheds, for the preservation of the state's most beautiful scenery and for the health and recreational needs of the people of the commonwealth. In 1897 the legislature authorized the purchase of 120,000 acres on the three main watersheds of the state—the first law authorizing the acquisition of state forest lands. The area in state ownership grew steadily. In 1913 a law was passed authorizing the leasing of state forest lands for health and recreational purposes and the temporary use of camp sites under permit. Regulations were made for public camps, commercial concessions, such as the sale of refreshments and boating privileges. This was the beginning of the recreational development of Pennsylvania's state forests. Governor Pinchot established a well-defined policy for such use, which was further advanced under Major R. Y. Stuart during his incumbency of the office of secretary of the Department of Forests and Waters.

The total area owned by the state on January 1, 1928, was 1,133,050 acres, acquired at a cost of $2,561,702.54, or an average of $2.26 per acre. Through legislative enactment not more than $10 per acre may be paid for forest land. Purchases in the past have been made through annual appropriations. While the department has authority to condemn forest land, it has never used this power.

After a decade of inactivity in state forest land acquisition the purchase program was renewed in 1927 with an appropriation of $500,000. Approximately 175,000 acres have been acquired or approved for purchase since this appropriation became available.

Road, school and county taxes are paid on state-owned forests.

There are 21 state forests in Pennsylvania. Within these state-owned forests are state forest parks, public camps and state forest monuments.

Seven state forest parks have been set aside, ranging in size from 15 to 425 acres and covering in the aggregate almost 1,000 acres.

They are selected principally for their natural scenic charm and their adaptability for recreational use. Several have historic associations. Three have been acquired through gift—the Childs Park in Pike County; the James Buchanan Birthplace near Foltz, and the Leonard Harrison State Forest Park in Tioga County. In Carbon County 435 acres were also donated to the state by the Fritz heirs of Philadelphia.

The Department of Forests and Waters was given specific authority in 1921 to set aside within the state forests unusual areas of great natural beauty to be preserved forever. Nine state forest monuments have been created containing over 700 acres. They are areas of remarkable scenic beauty. They are of many types, including swamp lands, exposed mountain places with peculiar plant associations, and rocks, ridges and ledges of rare beauty.

Since 1921 thirty-eight public camps have been established on the state forests. They cover approximately 470 acres. They are developed for the convenience and pleasure of forest users. Tents may be erected. Fireplaces, tables, benches, comfort stations, and garbage containers are provided. A spring, mountain stream, or well with pure water is a feature of each. They are used primarily by hunters, fishermen, hikers, and picnickers. For camping privileges it is necessary to secure a permit at the office of the district forester.

It is the policy of the department to provide conveniences to the public at no expense at the state forest public camps. The outlay for the construction of necessary improvements is made with the idea that when they are developd a restaurant concession may be granted to a trustworthy individual at a nominal rental, plus the responsibility of policing and maintaining the grounds. The prices charged by a concessionaire are subject to the approval of the department. Buildings may be constructed and repaired at the expense of the concessionaire, as are other necessary facilities. The department charges a nominal rental and all buildings and improvements are and remain the property of the department. This is believed to be a fair policy, since the concessionaire is permitted to construct buildings in lieu of the payment of a large annual rental. In the rental of boats the department charges a flat rate of so much per boat and provides for a maximum daily charge for each boat.

The sale of refreshments at the forest parks and public camps is permitted, but oil and gasoline stations are not allowed. These stations may, however, be permitted along the roadside elsewhere in the forests.

In 1913 the assembly gave the department authority to lease to individuals, associations and church organizations small areas of

land for permanent camp sites. Leases are granted for a period of ten years, with renewal privilege, at nominal rates varying from $7 to $15 annually. Permits for 44 sites were granted during the first year the act was in force. They now number more than 2,200, and during 1927 produced a revenue of $16,261 in rentals. The type of building which may be erected must be approved by the department. Practically every county in the state is represented among the lessees. A majority of the sites under lease are held by individuals and hunting and fishing clubs. The Boy and Girl Scouts, Y. M. C. A., Y. W. C. A., schools, fraternal organizations and churches also have leased camps.

An appropriation of $500,000 for the expansion of the forest holdings of the state was made by the 1927 legislature. This will make possible the addition of approximately 175,000 acres, practically all of which has either been acquired or is approved for purchase.

The most progressive step in many years in Pennsylvania forestry is the proposed bond issue of $25,000,000. Bond issues can be secured only through amendments to the state constitution. Such amendments are effected by the favorable action of two successive legislatures, and approval by the people at a succeeding general election. The $25,000,000 bond issue was approved by an overwhelming majority of the 1923 legislature, and was adopted by the 1925 session. In the natural course this bond issue would have been submitted to popular referendum in 1925, but was deferred owing to a suit based on a constitution provision that bond issues may not be submitted more often than each five years A referendum had been held in 1923 and the Supreme Court ruled that the forest bond issue referendum must wait until 1928. It will, therefore, be submitted to the voters of the state at the November, 1928, election.[1]

The state cooperates with the Federal Government under the Clarke-McNary Act and during 1928 will receive $37,628 for forest fire protection, $2,000 for the distribution of forest planting stock and $1,500 to state college for farm forestry extension.

The biennial appropriation for forestry to the Department of Forests and Waters for the period June 1, 1927, to May 31, 1929, is $2,881,970.

The Pennsylvania Department of Forests and Waters is composed of Charles E. Dorworth, secretary, Edward Bailey, Henry W. Shoemaker, Mrs. John L. Lawrence, and Henry S. Drinker. Joseph S. Illick is deputy secretary and state forester. The headquarters of the department are at Harrisburg.

[1] With a number of rural precincts to be heard from the bond issue was reported defeated.

Game

The method followed in Pennsylvania for the protection and propagation of her wild life is said to be the most practical in the country. This work is under the administration of the Board of Game Commissioners established in 1895. This board consists of eight non-salaried members appointed by the Governor and confirmed by the senate. The administrative work is under an executive secretary. In 1923 the office and field forces were reorganized. Bureaus of refuges and lands, of protection, of vermin control, and of research and information were created, each bureau having its specific assignments. For field men a form of written examination covering various subjects was inaugurated in an effort to raise the standard of men so employed. An age limit of from 25 to 42 years was established.

No appropriations are made by the state legislature for the work of the commission. Receipts from hunters' licenses, special licenses, penalties, forfeitures, and costs are placed in a separate fund known as the game fund and used only for the work of the board. In 1925 the game code was amended in several particulars and payment of all printing, office supplies, furniture and other equipment is now made from this fund.

The Bureau of Research and Information is charged with the educational work of the commission. Lectures are given before schools, scout troops, and sportsmen, civic and other organizations. Trained scientific men are employed for special lectures. A number of reels of motion pictures covering a variety of subjects have been made. Wild life exhibits are available. Many thousands of educational leaflets have been distributed. A bulletin on bird protection was prepared and widely distributed to schools and scout organizations. Newspaper and magazine articles are published. There is a strong popular demand among the citizens of the state for the material issued by the commission.

As a group Pennsylvania hunters strictly observe the game laws. This is due primarily to the fact that they know they may hunt for game which strays to lands adjoining the refuges owned and controlled by the State Game Commission. Their interest is shown by the the fact that they supported an act of the legislature in 1927 which increased the resident hunters' license fee from $1.25 to $2, the extra 75 cents to be used only for the acquisition and maintenance of state game refuges and public hunting grounds. It is estimated that this increase will furnish $375,000 a year. In the budget for the fiscal year, June 1, 1927, to May 31, 1928, the board provided a total of $400,000 for the acquisition and maintenance of refuges and public hunting grounds, $229,000 of this being used

only for the purchase of lands. Blocks of land 5,000 acres or more in extent are being purchased in sections of the state where suitable game territory is available. Areas of 1,000 acres or more are being acquired near the more thickly populated sections. Because of land conditions and values in Pennsylvania most of these prospective hunting grounds and game refuges must of necessity be concentrated within the central part of the state, since there are comparatively few areas available in the eastern and western sections.

The board believes that more and better game can be produced on game refuges than through propagation on game farms. The Pennsylvania system takes into consideration not only the establishment of refuges but the creation of public hunting grounds surrounding each refuge. The game refuges are real sanctuaries for game and birds although the smallest possible area is closed to hunting. The refuge areas include all elements found in the natural environment of game, such as food, water, cover and range. Where the board plans to provide a propagating ground for both large and small game, areas of approximately 2,500 acres are considered adequate. Where the refuge is for small game only it is believed areas of 100 to 300 acres will suffice.

The first state game refuge in Pennsylvania was established in 1905. The system now includes 35 primary refuges with a total area of 78,926 acres. Twenty of these refuges are located on state forests, eleven on lands purchased by the board, and three on leased lands. The eleven tracts which have been purchased cost $245,015, or an average of a little more than $2.84 an acre.

Auxiliary state game refuges for the protection and propagation of small game were inaugurated in 1918. They are principally in sections where hunting activities are limited. They are established for a period of ten years or more. Seventy auxiliary refuges have been established with an area of 27,601 acres, and an additional 63,870 acres surrounding set aside as public hunting grounds. Of these areas, fifteen are located on state forests, fourteen on lands owned by corporations, one on property belonging to a borough, and others on the property of associations or individuals. The cost of establishing these refuges varies, depending on the nature of the topography, the size and type of tree growth, the availability of roads and labor conditions. To date the cost of establishing the auxiliary refuges has been approximately $164 each. In 1925 the auxiliary refuge law was modified so that such refuges may now be established within two miles instead of five miles of another auxiliary or primary refuge. Lands may be used for auxiliary refuges or public hunting grounds without interfering with other legitimate uses.

The auxiliary refuges are as follows:

Refuge No.	County in which located.	Year created.	Area (acres)		Kinds of game on the refuge, in order of abundance.
			Within the refuge.	Public hunting grounds.	
1	Clarion	1918	700	None	Deer, cottontail rabbit, woodcock, raccoon, ring-necked pheasant, varying hare, gray and black squirrels, opossum, ruffed grouse.
2	Wyoming	1918	800	None	Woodcock, cottontail rabbit, gray squirrel, raccoon, ruffed grouse, deer, black bear, opossum.
3	Bucks	1919	500	None	Cottontail rabbit, gray squirrel, raccoon, ruffed grouse, ring-necked pheasant, woodcock, varying hare, opossum, quail.
4	Bucks	1919	600	None	Cottontail rabbit, gray squirrel, raccoon, ruffed grouse, woodcock, deer, varying hare, opossum, ring-necked pheasant.
5	Butler	1919	300	None	Cottontail rabbit, quail, deer, gray squirrel, raccoon, opossum, ruffed grouse, ring-necked pheasant, Hungarian partridge.
6	Adams	1919	700	None	Cottontail rabbit, gray squirrel, opossum, quail, ring-necked pheasant.
7	Allegheny	1920	400	284	Cottontail rabbit, gray squirrel, opossum, quail, ring-necked pheasant.
8	Huntingdon	1921	623	677	Cottontail rabbit, gray and fox squirrels, ruffed grouse, deer, raccoon, opossum, and occasionally quail and wild turkey.
9	Blair	1923	500	598	Cottontail rabbit, gray squirrel, deer, varying hare, raccoon, ruffed grouse, wild turkey.
10	Potter	1924	1,900	4,797	Deer, black bear, varying hare, cottontail rabbit, gray and black squirrels, raccoon, ruffed grouse, opossum.
11	Franklin and Fulton, Buchanan State Forest.	1924	1,204	Thousands of acres of state forest lands.	Gray squirrel, deer, cottontail rabbit, ruffed grouse, wild turkey, raccoon, opossum.

Refuge No.	County in which located.	Year created.	Area (acres)		Kinds of game on the refuge, in order of abundance.
			Within the refuge.	Public hunting grounds.	
12	Cambria	1925	200	4,120	Deer, cottontail rabbit, gray squirrel, ruffed grouse, varying hare, raccoon, opossum.
13	Cameron, Sinnemahoning State Forest.	1924	2,272	Thousands of acres of state forest lands.	Black bear, deer, gray and black squirrels, raccoon, ruffed grouse, cottontail rabbit, varying hare.
14	Clearfield	1924	800	4,200	Deer, cottontail rabbit, gray and black squirrels, raccoon, ruffed grouse, varying hare, fox squirrel, opossum.
15	Clearfield	1925	300	659	Deer, cottontail rabbit, gray and black squirrels, raccoon, ruffed grouse, varying hare, opossum.
16	Huntingdon	1925	467	1,533	Deer, gray squirrel, wild turkey, ruffed grouse, cottontail rabbit, varying hare, opossum.
17	Clearfield	1925	582	272	Cottontail rabbit, raccoon, ruffed grouse, deer, varying hare, gray and black squirrel.
18	Lebanon	1925	315	2,885	Cottontail rabbit, gray squirrel, raccoon, ruffed grouse, deer, and occasionally wild turkey.
19	Cambria	1925	330	670	Deer, cottontail rabbit, gray squirrel, ruffed grouse, varying hare, raccoon, opossum.
20	Wayne	1925	440	None	Cottontail rabbit, gray squirrel, ruffed grouse, ring-necked pheasant, Hungarian partridge, woodcock.
21	Clearfield	1925	380	504	Cottontail rabbit, gray and black squirrels, raccoon, ruffed grouse, varying hare, opossum.
22	McKean	1925	400	1,519	Varying hare, black and gray squirrels, ruffed grouse, raccoon, opossum, woodcock.
23	Potter, Susquehannock State Forest.	1925	425	Thousands of acres of state forest lands.	Deer, black bear, varying hare, cottontail rabbit, gray and black squirrels, raccoon, ruffed grouse, opossum.
24	Columbia	1925	447	1,903	Raccoon, cottontail rabbit, gray squirrels, opossum, ruffed grouse, woodcock, varying hare, fox and black squirrel.

Refuge No.	County in which located.	Year created.	Area (acres)		Kinds of game on the refuge, in order of abundance.
			Within the refuge.	Public hunting grounds.	
.25	Snyder, Bald Eagle State Forest.	1925	307	Thousands of acres of state forest lands.	Gray squirrel, deer, ruffed grouse, wild turkey, cottontail rabbit, raccoon, opossum.
26	Franklin.....	1925	471	1,163	Gray squirrel, deer, cottontail rabbit, raccoon, ruffed grouse, wild turkey, opossum.
27	Huntingdon.....	1925	100	277	Gray squirrel, quail, raccoon, opossum, ruffed grouse, wild turkey, ring-necked pheasant.
28	Jefferson, Kittanning State Forest.	1925	221	Thousands of acres of state forest lands.	Deer, black bear, cottontail rabbit, varying hare, gray and black squirrels, raccoon, ruffed grouse, woodcock.
29	York.....	1925	176	1,094	Gray squirrel, ring-necked pheasant, cottontail rabbit, opossum, Hungarian partridge, fox squirrel, raccoon, quail, wild turkey, woodcock.
30	Huntingdon.....	1925	527	848	Deer, cottontail rabbit, gray squirrel, raccoon, wild turkey, black bear, opossum, ruffed grouse.
31	Columbia.....	1925	261	1,631	Raccoon, cottontail rabbit, gray squirrel, opossum, ruffed grouse, woodcock, varying hare, fox and black squirrels.
32	Cameron, Sinnemahoning State Forest.	1925	653	Thousands of acres of state forest lands.	Deer, black bear, raccoon, woodcock, cottontail rabbit, varying hare, gray and black squirrels, ruffed grouse.
33	Dauphin.....	1925	350	2,650	Gray squirrel, ruffed grouse, deer, cottontail rabbit, fox squirrel, raccoon, varying hare, opossum, quail, woodcock.
34	Tioga, Tioga State Forest.	1926	266	Thousands of acres of state forest lands.	Deer, black bear, gray and black squirrel, ruffed grouse, cottontail rabbit, varying hare, raccoon, woodcock.
35	Sullivan.....	1925	393	294	Deer, black bear, cottontail rabbit, ruffed grouse, raccoon, opossum, woodcock, varying hare, gray and black squirrels, ring-necked pheasant.

Refuge No.	County in which located.	Year created.	Area (acres)		Kinds of game on the refuge, in order of abundance.
			Within the refuge.	Public hunting grounds.	
36	Sullivan	1925	123	379	Cottontail rabbit, gray and black squirrels, raccoon, ruffed grouse, deer, opossum, ring-necked pheasant.
37	Pike, Delaware State Forest.	1926	330	Thousands of acres of state forest lands.	Deer, varying hare, gray squirrel, raccoon, ruffed grouse, cottontail rabbit, black squirrel, opossum.
38	Pike, Delaware State Forest.	1927	130	Thousands of acres of state forest lands.	Deer, varying hare, black bear, cottontail rabbit, gray squirrel, raccoon, ruffed grouse.
39	Pike, Delaware State Forest.	1925	210	Thousands of acres of state forest lands.	Deer, ruffed grouse, varying hare, gray squirrel, raccoon, cottontail rabbit, opossum, woodcock.
40	Chester	1925	100	346	Quail, ring-necked pheasant, cottontail rabbit, raccoon, opossum, ruffed grouse, woodcock.
41	Juniata, Rothrock State Forest.	1926	145	Thousands of acres of state forest lands.	Deer, gray squirrel, wild turkey, raccoon, opossum, cottontail rabbit, ruffed grouse.
42	Mifflin, Rothrock State Forest.	1925	156	Thousands of acres of state forest lands.	Deer, cottontail rabbit, gray squirrel, raccoon, opossum, ruffed grouse, wild turkey.
43	Tioga, Tioga State Forest.	1926	211	Thousands of acres of state forest lands.	Deer, cottontail rabbit, gray squirrel, ruffed grouse, black bear, varying hare, black squirrel, raccoon.
44	Bradford	1926	401	365	Gray squirrel, deer, cottontail rabbit, varying hare, black squirrel, raccoon, ruffed grouse.
45	Sullivan	1926	250	1,318	Deer, black bear, cottontail rabbit, varying hare, gray squirrel, raccoon, ruffed grouse, black squirrel, opossum.
46	Elk	1925	154	3,102	Deer, cottontail rabbit, ruffed grouse, elk, fox squirrel, opossum, and a few quail, ring-necked pheasant and Hungarian partridges.

Refuge No.	County in which located.	Year created.	Area (acres)		Kinds of game on the refuge, in order of abundance.
			Within the refuge.	Public hunting grounds.	
47	Somerset, Forbes State Forest.	1925	141	Thousands of acres of state forest lands.	Deer, gray squirrel, cottontail rabbit, ruffed grouse, varying hare, raccoon, opossum.
48	Clinton, Bald Eagle State Forest.	1925	545	Thousands of acres of state forest lands.	Deer, gray squirrel, ruffed grouse, cottontail rabbit, black squirrel, raccoon, varying hare, opossum, wild turkey.
49	Berks	1926	315	1,965	Cottontail rabbit, gray squirrel, raccoon, opossum, ruffed grouse, and occasionally wild turkey, varying hare and woodcock.
50	Butler	1926	211	309	Deer, cottontail rabbit, gray squirrel, opossum, quail, ring-necked pheasant, fox squirrel, raccoon, ruffed grouse, and a few Hungarian partridges.
51	Lycoming	1926	129	695	Deer, black bear, cottontail rabbit, varying hare, gray squirrel, raccoon, ruffed grouse, opossum.
52	Elk	1926	166	2,708	Deer, cottontail rabbit, ruffed grouse, elk, fox squirrel, opossum and a few quail, ring-necked pheasant and Hungarian partridges.
53	Center	(Refuge not established)			
54	Erie	1926	296	758	Cottontail rabbit, fox squirrel, raccoon, woodcock, gray and black squirrels, opossum, ruffed grouse, quail, ring-necked pheasant.
55	Monroe	1927	152	2,848	Deer, cottontail rabbit, gray squirrel, opossum.
56	Berks and Chester	1926	451	1,282	Cottontail rabbit, gray squirrel, raccoon, opossum, ruffed grouse.
57	Clearfield	1926	111	450	Deer, cottontail rabbit, gray and black squirrels, raccoon, ruffed grouse, varying hare, opossum.
58	Bedford	1927	456	957	Quail, deer, cottontail rabbit, gray squirrel, raccoon, opossum, wild turkey.

Refuge No.	County in which located.	Year created.	Area (acres)		Kinds of game on the refuge, in order of abundance.
			Within the refuge.	Public hunting grounds.	
59	Susquehanna.....	1926	100	130	Cottontail rabbit, gray squirrel, ruffed grouse, raccoon, and occasionally deer.
60	Northumberland...	1927	251	1,549	Cottontail rabbit, gray squirrel, raccoon, ruffed grouse.
61	Jefferson.....	1926	100	1,000	Deer, cottontail rabbit, gray and black squirrels, ruffed grouse, varying hare, raccoon.
62	Clarion.....	1926	510	1,516	Deer, gray and black squirrels, raccoon, cottontail rabbit, opossum, ruffed grouse.
63	Fulton.....	1926	110	343	Deer, cottontail rabbit, gray squirrel, raccoon, opossum, ruffed grouse, wild turkey, and a few woodcock.
64	Westmoreland.....	1926	701	3,799	Deer, cottontail rabbit, gray squirrel, raccoon, ruffed grouse, opossum.
65	Luzerne.....	1926	290	312	Gray squirrel, cottontail rabbit, raccoon, quail, ring-necked pheasant, woodcock.
66	Westmoreland.....	1926	238	1,909	Deer, cottontail rabbit, gray squirrel, raccoon, opossum.
67	Cambria.....	1926	343	1,376	Cottontail rabbit, raccoon, opossum.
68	Bradford.....	1927	166	552	Deer, cottontail rabbit, gray squirrel, ruffed grouse, raccoon.
69	Jefferson.....	1928	167	653	Deer, cottontail rabbit, gray squirrel, ruffed grouse, raccoon.
70	Armstrong.....	1928	132	671	Deer, cottontail rabbit, gray squirrel, ruffed grouse, raccoon.

NOTE: The Pennsylvania Board of Game Commissioners has authority under an act of assembly to create an unlimited number of auxiliary refuges. They are established on lands for which the hunting rights only are leased for a period of ten years or more, and most of them are surrounded by lands for which the commonwealth controls the hunting rights.

The Board of Game Commissioners consists of Ross L. Leffler, president; Jared M. B. Reis, vice-president; Adolf Müller, Francis

H. Coffin, Franklin G. McIntosh, Richard E. Reitz, H. J. Donaldson and Harry C. Stackpole. J. B. Truman is executive secretary. Headquarters are at Harrisburg.

Rhode Island

Rhode Island has made provision for the establishment of park areas, for the preservation of her forests and for the protection of her wild life. Each of these developments is under a separate administration. No state forests have been established. Park areas totaling 1,716 acres have been created. These parks give the same service as state parks though not created primarily for the same purpose. Their object is the provision of outdoor recreation, and although they are of scenic value, the preservation of the state's best scenery does not seem to be a requirement of their creation. Under a proposed bond issue this system will be extensively developed. The parks are now in the nature of metropolitan parks developed extensively by the state and serving the people of the entire state.

Parks

Rhode Island has twenty-three parks ranging in size from less than an acre to 472 acres. These parks are established primarily for recreational use and not with the primary purpose of preserving the natural scenic beauty of the state.

The development of the park program began in 1904 when the Public Park Association was incorporated by the legislature. This association was given authority to study, plan and acquire land for public parks and playgrounds. The Metropolitan Park Commission was created in the same year with the object of studying the needs of the state in regard to parks and parkways and plans for the development of a metropolitan park. The commission consists of five nonsalaried members appointed by the Governor. The executive is a superintendent and secretary. Under the law creating the commission parks could only be developed in the region of largest population—that is, in Providence, Washington and Lincoln counties. Legislation in 1927, however, enlarged the jurisdiction to include the whole state and powers of condemnation were given to acquire land by that method in any part of the state.

Up to 1919 park areas have been acquired principally through bond issues, though some land has been donated to the state. Since 1919 purchases have been made through direct annual appropriation. The first bond issue was authorized in 1908. It amounted to

$250,000 and was assessed on the entire state, although the parks could only be created in three counties. The initial park purchases were made through the proceeds of this bond issue. In 1912 a second bond issue of $300,000 was authorized. The commission believes the bond issue method is the ideal way of securing funds for the purchase of park areas.

Condemnation authority has been granted and has been exercised in acquiring approximately one-fourth of the present acreage. A majority of its condemnation cases, however, have been caused by the necessity of clearing titles, and were settled by negotiations. In only several instances has it been necessary to go to court.

Free camping is permitted on the parks of sufficient area, but the use of a site is limited from two or three days to two weeks, and a permit must be obtained at the State House. In the Lincoln Woods park sites are available for overnight or two or three days only. Annual appropriations are made for the maintenance of these areas. The reservations are policed by metropolitan park police appointed by the Governor at the request of the commission. Camping is permitted throughout the year. There are baseball and football grounds and bathing beaches. There are many trails in the parks, excellent bridle paths, and cinder or gravel drives. Wading pools are used for skating in the winter. Snowshoeing, skiing and sledding are among the popular sports available during the winter months.

Concessions are granted at bathing beach, baseball and other grounds, and the revenue from these concessions, in fact all park income, goes into the state treasury. No admission is charged at any of the parks.

The parks are as follows: Goddard Memorial Park, Warwick, 472 acres; Lincoln Woods, Lincoln, 458 acres; Barrington Parkway, East Providence 116.87 acres; Haines Memorial Park, East Barrington, 104.4 acres; Ten Mile River, Pawtucket, 104 acres; Pawtucket River, Cranston, 81.38 acres; Narragansett Parkway, Warwick, 55.5 acres; Mashapaug Pond, Providence, 55 acres; Stillhouse Cove, Cranston, 41.5 acres; Dyerville, Providence, 38.3 acres; Edgewood Beach, Cranston, 38.1 acres; Meshanticut Park, Cranston, 28.22 acres; Corliss Park, Providence, 25.15 acres; Seekonk River, Pawtucket, 20.45 acres; Merino Park, Providence, 20.24 acres; Nausauket Beach, Warwick, 15.51 acres; Neutaconkanut Hill, Johnston, 14 acres; Troop C Park, Cranston, 9.04 acres; West River, Providence, 8.03 acres; Metcalf Field, Providence, 6.5 acres; Arnold's Neck, Warwick, 3 acres; Canada Pond, Providence, 0.92 acre; Chepiwanoxet, Warwick, 0.7 acre. Other acquisitions are being made and about 1,000 acres have been obtained by option or deed.

The commission has just received a fine gift to its park system—472 acres of forest land at Potowomut on Greenwich Bay. This gift was made by R. H. I. Goddard, of Providence, and his sister, the Marquise d'Andigne, of Paris, in memory of their father, the late Col. R. H. I. Goddard. The area is particularly interesting, since over sixty years ago its owner conceived the plan of transforming a wind-swept waste of shifting sand into a forest cover, with a resulting fine growth of red and white pines and Douglas spruce and other hardwood trees.

A comprehensive park system will be developed in Rhode Island, should the voters of the state approve a bond issue, authorized by the 1927 session of the General Assembly. The proposed bond issue is for $600,000, and its proceeds will be used for the acquisition of public reservations, parks, and bathing beaches. This bond issue will be voted on at the election of November, 1928. If a favorable vote is received, the General Assembly, which meets in January, 1929, will again pass on the issue. It will probably designate the manner and period of expenditure. The legislature will continue to provide annual appropriations for the maintenance, supervision, and care of the reservations. A definite program of development under the bond issue has not been determined, although it is practically decided that a major item will be the erection of a modern bathing establishment either on the ocean front or the shores of lower Narragansett Bay, or at the recently acquired Goddard Memorial Park. Large areas of wild land bordering on lakes or rivers will be acquired and utilized for camping, boating, fishing, and bird refuges. The present reservations will be enlarged, and parkways, drives, and field houses will be constructed. Facilities for outdoor sports will be provided, including baseball fields, tennis courts, and golf courses.

The Metropolitan Park Commission consists of Edwin A. Burlingame, William McGregor, John A. Tillinghast, John M. Dean and Robert A. Kenyon. Frank Drew is secretary of the commission, with headquarters at Providence.

State Forests

Rhode Island has a land area of 682,880 acres, of which 250,000 acres is forest land. None of this land is preserved in state forests.

The earliest forest law in the state was passed in 1872, and provided as follows: "Every person who shall maliciously set any fire in the woods which shall run and spread at large shall be imprisoned not exceeding two years." It was not until 1906, however, that the legislature authorized the appointment of the Commissioner of For-

estry, who has charge of the forest activities of the state. In 1927, through a reorganization, the forestry organization was placed under the Department of Agriculture of the state.

In 1908 an exemption act was passed which provided that where one or more acres worth not more than $25 per acre had been planted, the owner might apply for exemption from taxation for a period of 15 years. To receive such exemption, it was stipulated that the land planted must be managed under a forest working plan approved by the commissioner.

The first forest fire protection law was passed in 1909. This law was amended to provide that one half the expenses of extinguishing fires be paid by the town in which the warden is appointed and that the other half be paid by the state.

The appropriation for forestry work during 1928 is $8,410. Rhode Island cooperates with the Federal Government, under the Clarke-McNary Act, and during 1928 will receive $1,134 for forest fire protection.

Leon D. Andrews is forester of Rhode Island. His headquarters are in the State House at Providence.

Game

Game work in Rhode Island began in 1899, when the Commissioners of Birds was established. There are five members of the Commissioners of Birds, who serve without compensation, and who are appointed by the Governor. The chairman is the executive officer.

The expenses of conservation work in bird and game life are borne by the hunters themselves. Revenues from hunters' licenses and violations of the law are placed in a game fund which is used for work of the commission. No regular appropriation has been received from the legislature, although $3,000 was appropriated in 1925 for the purchase and distribution of pheasants throughout the state. The commissioners recommend an increase in funds in order that they may maintain a force of deputies throughout the entire year, and suggest that these additional funds be raised through an increase in the residence license fee from $1 to $2.25.

Deer have greatly increased, particularly in the southern portions of the state. This is due to a closed season, and the commissioners believe that it will shortly be possible to have an open season of one week on deer. They are particularly numerous in the woods of Kent and Washington counties.

A game farm has been operated since 1925. The game on the farm includes partridge, quail, pheasant, woodcock, ducks, shore

birds and rabbits. Ducks and shore birds are also found on refuges in the vicinity of Narragansett Bay.

No land has been donated to the state for the sole purpose of game sanctuary. There is, however, approximately 18,000 acres on which hunting is prohibited. All of the lands acquired by the state as metropolitan parks are game refuges, though created primarily to preserve the primitive aspect of the landscape. Arrangements will also be concluded during 1928 to create a game refuge on land in Scituate owned by the city of Providence, which was originally acquired for a water supply and includes large drainage areas which flow into it.

A refuge which is in the nature of a permanent preserve is located at Warwick Neck, Kent County. It contains 2,560 acres. This refuge was established by an act of the legislature, which prohibited shooting for five years. As each of these periods expires, the Commissioners of Birds have been successful in persuading the legislature to renew it.

The Commissioners of Birds are Everett L. Walling, chairman; John Barlow, Alexander G. Fales, Everett L. Barrus, Clifton L. Tallman. The headquarters are located in the Hospital Trust Building at Providence.

South Carolina

This state is without state parks. No organized movement for the creation of such areas has been considered, although there exists the feeling among some of the public-spirited citizens of the state that a system of state parks would be valuable to the state. Suggestions have been made for the acquisition for park purposes of areas which have recreational possibilities, but they are all in private ownership and no steps have been taken to secure them.

There has been a keen interest in the conservation of game and in the development of a forestry program. Since there are no state-owned game preserves, however, there is no possibility of the provision of recreational opportunities through such areas. This is also true of the forestry movement, where interest lies almost entirely in the economic phase. Little thought has been given to the creation of state forests due, undoubtedly, to the great necessity of immediately protecting all the forested lands from fire.

Before many years it is probable a movement will develop for the establishment of a comprehensive state recreational program, including the creation of state parks and forests.

State Forests

The total area of South Carolina is nearly 20,000,000 acres. Originally about 17,000,000 acres of this area were in forest, and nearly 12,000,000 acres of forest land still remain. Of this only 500,000 acres of virgin timber are left.

Interest in the practice of forestry by the state developed slowly and is still limited to the economic phase. This interest grew largely through the efforts of such leaders as James Henry Rice, Jr., of Wiggin; Prof. Andrew C. Moore, of the State University at Columbia; H. L. Tilghman, of Marion, and Henry H. Tryon, formerly extension forester at Clemson Agricultural College. Added impetus was given by the formation in October, 1925, at Columbia, of the South Carolina Forestry Association.

In 1912, and again in 1925, bills were introduced in the assembly for the establishment of a State Forestry Department but they failed to pass. Believing the needs of the state could be served best by the establishment of such a service an intensive campaign was carried on by the leaders in this movement. As a result a well-planned bill, establishing a forestry policy, was presented to the 1926 Legislature. It passed the senate by a large majority but was defeated in the house. In February, 1927, the legislature passed a similar bill creating a State Commission of Forestry and providing for the protection of the forests of the state.

The commission consists of five members appointed by the Governor. Two must be practical lumbermen, one must be a farmer who is a landowner, one is selected and appointed from the public at large, and the president of the Clemson Agricultural College is the fifth member. The members of the commission are selected because of their knowledge of and interest in the forests of the state. They receive no salaries but are paid actual expenses while in attendance at meetings of the commission and while going to and from meetings.

The commission is directed to employ a state forester who shall be a technically trained forester with at least two years' experience in technical, practical and administrative work. His principal duties are fire prevention and suppression and the development of a broad, state-wide educational forestry campaign. The commission is directed to give advice, assistance and cooperation to private owners of land and to promote an appreciation of the advantages of forestry.

The state treasurer may receive contributions for forestry work from any source and may accept funds from the Federal Govern-

ment for the same purpose. All funds are disbursed by the state treasurer upon warrants drawn by the commission.

When the forestry bill passed no appropriation was made for the carrying out of its provisions. Effort to secure such an appropriation from the 1928 Legislature was successful and $4,000 was allotted to the work for 1928. A Federal allotment of $3,400, under the Clarke-McNary Act, for the present fiscal year is available. Private funds amounting to $8,000 were raised through cooperative agreements between the commission and the owners of four forest land holdings. These landowners will expend certain amounts for the protection of their land from fire and the commission, when it receives a state appropriation and prepares a budget which can be approved by the U. S. Forest Service, will reimburse the landowners a certain proportion of their expenditures, using the Federal funds and any other funds which may be available.

The members of the commission are H. L. Tilghman, of Marion, chairman; B. S. Meeks, of Florence, vice-chairman; Paul Moore, of Spartanburg; W. H. Andrews, of Andrews; and E. W. Sikes, of Clemson. Lewis E. Staley is State Forester. His headquarters are in Columbia.

Game

Effort for the preservation of the wild life of the state began rather late, since the office of Chief Game Warden was not established until 1910. Game and fish were gradually being exterminated and more protection was necessary. In the few years since game has been protected, all game is on the increase, despite a corresponding increase in the number of hunters.

One of the most important recommendations of the Chief Game Warden is the complete revision of the game code. The laws have been amended so many times in the past fifteen years that they are now badly confused.

The department has grown rapidly as is evidenced by the growth in revenue. In 1912 the total revenue collected was only $1,956. In 1928 the revenue reached $188,000. Fifty-five per cent of the income from hunting and fishing licenses is used for the work of the department—the remaining 45 per cent going to the school fund. The department now pays to the school fund approximately $85,000 annually.

South Carolina does not own any game sanctuaries. The areas which have been established under authority of an act passed by the General Assembly in 1926 have been set aside through agreement with land owners who are willing to relinquish their own hunting rights for a period of five years, with the provision that the state post

the land and keep off all trespassers. Forty sanctuaries of approximately 100,000 acres have been set aside in tracts ranging from 500 to 5,000.[1] These areas eventually will be stocked with game of different kinds—at present they are simply placed where game may breed unmolested.

A. A. Richardson is Chief Game Warden. His office is in the State Office Building at Columbia.

South Dakota

Many possibilities exist in this state of unusual landscape for the creation of outdoor playgrounds, for the preservation of game and for the development of state-owned forests. The highest elevations are in the Black Hills, a distinct group of mountains, among which is situate the famous Custer State Park. Each locality in the state has its distinct characteristics—distinct in their attractions, and all interesting to the lover of the out-of-doors.

Parks, forests and game are under entirely separate and distinct administrations in South Dakota, and these administrations were further separated by the last legislature which placed the entire control of the state park under the Park Board. Both game and forestry officials had previously had a hand in its development.

The greatest progress has been made in the park field. One of the most beautiful in the country has already been established and others are contemplated. The last legislature authorized a study of the recreational possibilities of the entire state so that they could be developed as a state park system. Little progress has been made in forestry and the state is lagging behind in this particular as compared with other states. Game work is running parks a close second and the wild life of the state is rapidly increasing.

State Parks

One of the most beautiful of our state parks is the wild, rugged Custer State Park—originally a game preserve. Within its boundaries are the best forests of the Black Hills and the finest scenery.

The game preserve was founded in 1913, when the Federal Government sanctioned its separation from the Harney National Forest.

The establishment of Custer State Park is in a large measure due to the effort of Senator Peter Norbeck, when he was Governor of the state. At the beginning of his second term he urged that the state game preserve be made a state park. His recommendation was followed and the Custer State Park was created in 1919, with 61,440

[1] A list of the sanctuaries was not furnished.

acres in the original area. It was made up of 40,000 acres of "lieu" lands, which had been acquired from the U. S. Forest Service in exchange for scattered school sections and Indian lands, included in the game preserve. Through the purchase of privately owned land, 3,000 acres were acquired. Congress vested title to 18,440 acres within the Harney National Forest in the state. Thus were acquired the 61,440 acres constituting the original area of Custer State Park.

The Harney Peak and Sylvan Lake districts were not included within the original Custer State Park. Negotiations were conducted with Federal officials, resulting in the designation in 1920 of this area of 30,000 acres as the Custer State Park Game Sanctuary. The act gave jurisdiction to the State Park Board, although the U. S. Forest Service retained control of the timber and maintained a fire patrol.

The terms and conditions imposed by the Federal Government in the transfer of the game sanctuary to the state park were accepted by the legislative session of 1921. Governor Norbeck then obtained a personal option on the Sylvan Lake hotel, the lake, an artificial body constructed through the building of a dam, and the surrounding land. A special session of the legislature was called in July, 1920, which, when other business had been completed, appropriated $50,000 to purchase the property and to make needed improvements to the hotel and the grounds. These additions, with a few minor changes and adjustments, brought the total area to 107,440 acres.

The park was under the administration of three departments of the state—the State Park Board, created in 1919; the State Forester, and the Fish and Game Department. All three made excellent developments. The State Game Department bought 340 acres of privately owned land within the park area and built a game lodge, maintained as a hotel, which is open throughout the year. In the 60,000 acres which were fenced, buffalo, elk, and mountain sheep were installed. Native deer, both white tail and mule deer, have increased more than tenfold since this became a restricted area. The state forester cut some of the timber for school funds. The State Highway Commission, in 1919, began the construction of roads within the park. The Needles Highway was among the roads so built. It is one of the most scenic roads in the west and one of the most famous, extending as it does through the remarkable granite needles found in this region. There are 100 miles of roads within the park.

Sentiment slowly developed for the withdrawal of all administrations except the State Park Board. At a special session of the Legislative Assembly in the summer of 1927 a bill was passed placing

complete jurisdiction over the park in the State Park Board. The board consists of three members, appointed by the Governor. They receive no compensation other than their actual and necessary expenses. The position of superintendent of the park was created and also the position of state forester.

Under this new law the board is authorized to purchase any lands within the boundaries of the park, whether privately owned or Government lands, or lands held in trust by the State of South Dakota through its school and public land department. A bill was passed authorizing an appropriation of $20,000 annually beginning January 1, 1928, to make delinquent payments of interest and principal due to the school and public land department on lands purchased by the board. Another act appropriates $10,000 available July 1, 1928, for the purchase of land within the park whether patented, relinquishments, or Government land. A special committee of three is created and directed to make a full and comprehensive report to the Governor before the next session of the legislature on the lands remaining beyond the control of the State Park Board.

The board is given the right of eminent domain; is directed to protect all timber lands within the park from fire; to regulate speed on highways and trails within the park; to maintain or assist in maintaining the schools within the park; to encourage the erection of summer cottages and summer homes; to contract for and sell timber on any of the lands within the park, such sales not to exceed 100,000 lumber feet in any one year; to construct and maintain the necessary highway roads and trails and to use moneys available for the purpose; and to purchase the necessary right-of-way for highways and trails and exercise the right of eminent domain for this purpose.

A special fund is created, called the park land purchase fund, in which each year annual appropriations will be placed. A highway fund is also made up of funds set aside by the State Highway Commission for the building and maintenance of roads and trails within the park.

While the hunting of game animals and game birds within the park is prohibited the board is given authority to permit necessary hunting, trapping, or killing of surplus game or birds under regulations it may prescribe.

Game wardens may be appointed under the act and are given police power within the park boundaries.

The revenue from concessions, from the hotels, camping fees, sale of supplies, and so on, goes into a revolving fund for the use of the park. Saddle horses are available, boats can be rented, there is a golf course at the game lodge, sites for cabins may be rented for

$10 a year, and other facilities for the enjoyment of the park are provided.

Since its creation over $2,000,000 has been spent in the development of Custer State Park—$750,000 on highways, $250,000 by the Game and Fish Commission, and over $1,000,000 for purchases and maintenance.

The size of the park is enlarged under the act recently passed to include the stockade and other historic places, and it now contains approximately 125,000 acres.

There are many other possibilities throughout the state for the creation of state parks and the State Park Board was directed by the 1927 special session of the legislature to formulate and recommend a state-wide plan for the development of a system embracing the scenic and recreational areas in different sections.

The present State Board is composed of Senator Peter Norbeck and J. A. Stanley, of Lead, and Fred S. Rowe, of Fort Pierre. The superintendent of the park is Charles W. Robertson, whose address is State Game Lodge, Hermosa.

State Forests

At one time South Dakota had a forested area of 1,920,000 acres. This has not been reduced as much proportionately as in other states, since there still remain 1,320,000 acres of forest land, of which 800,000 acres are virgin timber.

South Dakota has no state forests and few forestry laws. The laws passed refer to the care and conservation of lands through fire protection and the supervision of timber sales.

The state cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 will receive $375 to be applied to fire protection. It will expend from the state appropriation $7,235.

There is a Division of Forestry with a State Forest Supervisor at its head. This division is under the State Department of Schools and Public Lands, which took over the work in 1913. Mr. Theo. Shoemaker is State Forest Supervisor. His address is Custer.

Game

Game work in South Dakota began in 1909, when the office of State Game Warden was established. In 1913 a State Game Commission was created, consisting of the Governor, the Attorney General, and the State Game Warden. The work advanced rapidly within the next few years, building for the future both in terms of the preservation of the natural game life and the introduction of

game. A program of reorganization of the state department was inaugurated by the 1925 Legislature and game work was placed under the newly created Department of Agriculture—a division of game and fish was created. Again, in 1927, during the special session of the Legislative Assembly, another change was made through the creation of a Game and Fish Commission.

The commission consists of six members, appointed by the Governor, not more than two of whom shall at the time of the appointment reside in the same congressional district. No commissioner can, during the term of his incumbency, hold any state or Federal office. They receive no salaries, but are reimbursed in an amount not to exceed $500 for travel expenses.

The position of Director of Game and Fish was created by the act, this officer to be appointed by the commission. He has charge of all employees and activities under the jurisdiction of the commission.

The commission has power to regulate, protect and control the conservation, protection, importation and propagation of all game and has control for such purposes over all the lands and waters owned, leased or controlled by the state. It also has authority to acquire public or private property by gift, grant, devise, purchase, lease or condemnation proceedings.

The appointment of a state game warden was authorized, and not to exceed twelve deputy wardens. Additional wardens may be appointed when an emergency exists.

A state game and fish fund was created, into which go all moneys collected under any of the game and fish laws of the state, including money paid for licenses, on bonds or contracts entered into, and money due from other sources connected with the game and fish laws except fines. Twenty-five per cent of such funds may be used for the propagation and preservation of game and fish within the Custer State Park, but not more than $25,000 can be apportioned to the park during any one fiscal year.

The state owns two game refuges—800 acres in the Custer State Park, and an antelope preserve which is made up in part of leased lands. Antelope are steadily increasing on these areas, as are mountain sheep, elk, and deer.

The Theodore Roosevelt Game Refuge, in the northern part of the Black Hills, and the Sisseton Bird Refuge, each consisting of leased lands, were established by specific acts of the legislature. Other bird and game refuges were acquired under authority conferred on the Secretary of Agriculture by the legislature, permitting him, upon petition of one or more owners of land, to constitute such land a game bird refuge when it appears that the game birds

in the locality are in danger of extermination. These refuges may be established either permanently or for a term of years. The following refuges, most of which provide suitable habitat for both waterfowl and upland birds, have been set aside under this law:

Theodore Roosevelt Game Refuge, Black Hills National Forest and privately owned land, 10,000 acres, birds, deer, and elk; Sisseton Bird Refuge, Marshall County, 1921, 17,920 acres, birds and fowl; Ipswich Bird Refuge, Edmunds County, 1922, 5,120 acres, birds; Grand View Bird Refuge, Brule County, 1923, 1,280 acres, birds and fowl; Wall Lake Bird Refuge, Minnehaha County, 1917, 960 acres, fowl; Lake Madison Bird Refuge, which includes only the waters of Lake Madison, Lake County, 1923, fowl; Sherman Park Refuge, Sioux Falls, Minnehaha County, 1926, birds; McPherson County Game Bird Refuge No. 1, 1923, 1,280 acres, birds and fowl; McPherson County Game Bird Refuge No. 2, 1923, 1,120 acres, birds and fowl; Mallard Slough Game Bird Refuge, Clark County, 1924, 2,400 acres, fowl; Rapid Canyon Game Refuge, Pennington County, 1926, 1,600 acres, birds and deer; Sand Lake Game Bird Refuge, Brown County, 1926, 2,880 acres, fowl; Sioux Bird Refuge, Minnehaha County, 1927, birds.

The term "fowl" applies to all migratory waterfowl; "bird" applies to migratory and native shore birds, upland game birds and song birds.

The members of the commission are Fred H. Hildebrandt, chairman, Watertown; Charles Boreson, vice-chairman, Ideal; L. Lapier, Huron; C. B. Adams, Custer; C. R. Tinan, Kimball; and A. G. McBride, Lake Andes. The Director of Fish and Game is O. H. Johnson, with headquarters in Pierre.

Tennessee

Interest in the conservation of the outdoor resources of the state is strong in Tennessee. Effort for the preservation of game, forests, and scenic places did not crystalize, however, until after 1900. First, in 1901, came the beginning of the present forestry system, which was not successful until 1914. The creation of the office of State Game Warden followed in 1903. In 1925 a State Park and Forest Commission was created. The latter commission is inactive due to lack of appropriations. It will be seen that each phase of this work is under separate administrations, and, with the exception of the park system, excellent progress is being made. It is planned to develop the State Park System within the next few years.

State Parks

The establishment of state parks in Tennessee was first suggested in 1919 by Wilbur A. Nelson, at that time geologist of the state. In his annual report of that year he urged that the wild, undeveloped tracts of state-owned land be set aside as the nucleus of a state park system. Among the areas recommended were Reelfoot Lake, a picturesque area of great natural beauty; and the Herbert Domain in the center of the Cumberland Plateau, containing approximately 11,000 acres of striking scenery with ideal camping places. The last suggestion was the Brushy Mountain coal tract owned by the state, which Mr. Nelson said would be valuable primarily as a state forest reserve.

The establishment of a state monument system was also recommended, to which could be added such relics of state and national history as the Lewis Monument, the Hermitage, John Sevier's Forge, and the Great Indian Mounds of Middle Tennessee.

These suggestions were continued from year to year. With the beginning of interest in a project for the creation of a national park in the Great Smoky Mountains, general interest in the creation of a state park system was greatly stimulated. In 1925 the legislature passed an act creating the Tennessee State Park and Forestry Commission, this commission to be composed of four members—the Governor, and three others to be appointed by him, one from each of the three grand divisions of the state.

The State Park and Forestry Commission has power to acquire by gift or purchase, or the exercise of eminent domain, areas suitable for park development. A special appropriation must be made by the General Assembly for the purchase of park land. The commission is directed to make a careful study of the state, to recommend to the General Assembly any areas which it believes suitable for park and forestry purposes, and to adopt a system for the proper development, preservation, and administration of such areas. The control and administration of all such areas is vested in the State Park and Forestry Commission. Authority is given the Governor to appoint an executive secretary to the commission, who will be in immediate charge of the administration of all matters relating to the areas and property under the commission. Revenues from future state parks or forests go into the state treasury.

Interest in the state has centered in work for the creation of the Great Smoky Mountains National Park, which is rapidly being brought to a successful conclusion, the state having by legislative enactment voted the issuance of $1,500,000 of bonds to be used in successfully establishing this park. As a result, no appropriations

have been made for the work of the State Park and Forest Commission. Undoubtedly the successful culmination of effort to secure the national park will result in the development of a comprehensive state park system.

The establishment of a state park at Reelfoot Lake will probably be the beginning of the state park system. In 1928 the state purchased all the holdings of the West Tennessee Land Company for the sum of $60,000. This land surrounds most of the lake and makes a reality, this the first state park in Tennessee. In 1925 the legislature appointed a commission consisting of Frank S. Hall, of Nashville; L. J. Pardue, of Ashland City, and T. W. Doty, of Paris. Under authorization of an act providing for the acquisition of lands around Reelfoot Lake for park purposes, this commission made numerous surveys of the areas surrounding the lake. The lake property, which the state already owns, was acquired in 1912 by condemnation proceedings against the West Tennessee Land Company. It embraced the waters of the lake to the ordinary low water and the land under water. Little progress has been made in the acquisition of land other than that of the West Tennessee Land Company since prices have been boosted, some owners asking as high as $1,500 an acre for swamp land which is valueless except for game and fish. Several suits have been filed to procure this land. The Governor recently has refused to proceed with the purchase until lands may be had at more reasonable prices. A high water line has been established around the lake to fix the property line of the state as a protection against encroachment.

When negotiations are completed, Tennessee will have one of the most interesting state parks in the country. Reelfoot is an earthquake lake, 14 miles in length and averaging about four miles in width. It is a result of the New Madrid earthquake in December, 1811. Formerly a forest, the stunted bodies of former giant, symmetrical cypresses stand all over this body of water, surrounded by a film-like moss. Bird life flourishes along the lake, and it teems with plant growth and fish.

The members of the Tennessee State Park and Forest Commission are Governor Horton, ex-officio chairman; Col. D. C. Chapman, of Knoxville; Henry E. Colton, of Nashville; and A. E. Markham, of Tiptonville.

State Forests

Because Tennessee is a natural tree growing state, interest in the conservation of her forests is keen. Over half of the original forest cover of the state is gone, only 12,000,000 acres remaining.

Effort for the conservation of the forests of the state began as far back as 1901, when the Tennessee Forest Association was formed. This organization remained active for only two or three years. In 1909 an act was passed creating the Tennessee Geological Survey, which among its other duties was charged with forestry work and the study of gullied and waste lands, and in 1913 funds of the Geological Survey were allocated to forestry work, and a forester employed. Forestry work remained under the direction of the State Geologist until 1921, when a Bureau of State Forestry was created, which was placed under the direction of a nonsalaried State Forestry Commission. The act provided a Forestry Commission composed of the Governor as ex-officio chairman, the president of the University of Tennessee, the chancellor of Vanderbilt University, the vice-chancellor of the University of the South, the president of Lincoln Memorial University, the State Commissioner of Agriculture, and the State Superintendent of Public Instruction. The appointment by the commission of a state forester was authorized. The forester has charge of the conservation of the forests within the jurisdiction of the state and is directed to carry on the reclamation of gullied and similar waste lands. Among his other duties are fire prevention; the collection and distribution of data relative to forestry conditions; the enforcement of forestry laws; cooperation with the Federal and state governments and landowners; and the distribution among the schools of the state of printed matter encouraging an appreciation of the importance of forest protection and soil reclamation.

In the reorganization of the state departments in 1923, forestry work was placed in the Department of Agriculture, which acceded to the powers formerly held by the State Forestry Commission and the state forester. A Division of Forestry under the department was created, with a state forester as the administrative head. An unpaid advisory Board of Forest Conservation was authorized in connection with the division, composed of the Commissioner of Agriculture, the president of the University of Tennessee, and the chancellor of Vanderbilt University. In 1925 four additional members were added to the board, these members to be nominated by the Tennessee Forestry Association formed in 1918 and appointed by the Commissioner of Agriculture.

The most important duty of the Division of Forestry is the prevention and suppression of forest fires and the reclamation of waste land by tree planting. Of the 12,000,000 acres forested in the state only 7,500,000 acres have been placed under organized fire control. A system of patrolmen and fire fighters (corresponding to

wardens and deputy wardens in other states) and lookout men carry on the work of fire control assisted by many volunteer helpers. Civic clubs, chambers of commerce, women's clubs, boy and girl clubs and many other organizations and schools are active workers. Seven protective organizations, made up of owners of forested land, cooperate. The state organizes and supervises the work of these cooperative units.

Interesting work is conducted along educational lines. Articles are prepared for the public press, lectures are given to schools and before civic organizations and forestry exhibits given at state and county fairs.

Through a provision in the Act of 1921, the State Text-Book Commission adopted a text-book on forestry entitled "Our Trees and How They Serve Us," to be taught in the public schools. Each pupil is required to write one short essay on forestry during the school session.

The state forester, in his latest annual report, recommends the establishment of a system of state forests and parks. The forests would, he believes, be of great value for general forestry education and for investigative and scientific study. The purchase, through state aid, of land for county or municipal forests is also recommended. As yet Tennessee has no state forests.

The state cooperates with the National Government under the Clarke-McNary Act, and, during 1928, will receive $21,250 for fire protection, $1,000 for the distribution of forest planting stock, and $1,860 for farm forestry extension.

The appropriation for the year 1928 is $42,300.

The members of the Board of Forest Conservation are Mr. Homer Hancock, State Commissioner of Agriculture; Dr. J. H. Kirkland, chancellor, Vanderbilt University; Dr. H. A. Morgan, president of the University of Tennessee; Henry E. Colton, of Nashville; Howard Andrews, of Nashville, and J. C. Rainey, of Cottage Grove. R. S. Maddox is state forester. His headquarters are in Nashville.

Game

Concerted effort for the protection of game began in Tennessee in 1903, when the office of state warden was established. This was followed in 1905 by the creation of the Department of Game, Fish, and Forestry. Forestry work was later eliminated. The Department of Game and Fish was established in 1915, followed, in 1923, by an act making it a division of the Department of Agriculture and placing it under the supervision of the commissioner of the department.

The State Game and Fish Warden, appointed by the Commissioner of Agriculture with the consent of the Governor, is the executive officer of the division. It is his duty to enforce all laws enacted for the protection, propagation, and preservation of game and fish.

To enforce the game and fish laws, deputy wardens are appointed by the Commissioner of Agriculture with the consent of the Governor. All sheriffs, deputy sheriffs, city marshals, constables, and policemen are ex-officio wardens, and have authority to enforce the laws in their respective communities.

An interesting provision of the game laws of Tennessee prohibits the hunting, killing, or capturing, at any season of the year, of game animals, or birds on farmlands, woodlands, or coal lands owned by the state. The Brushy Mountain tract, the Herbert Domain, the state prison farm and woodlands, the land of several hospitals for the insane, the soldiers' home, and the normal school tracts are included within the scope of this section. The state-owned land on Reelfoot Lake, however, is expressly excepted. Any resident or nonresident of Tennessee who has a state license may hunt on the lake. It is unlawful for any hunter to kill more than twenty wild ducks or other game birds in one day, or to hunt on Reelfoot Lake before 8 a. m. and after 4 p. m. The State Game and Fish Warden has general supervision of the lake, of all the islands within the lake and of adjacent land belonging to the state. With the approval of the Governor and the Attorney General, the warden may make rules and regulations covering all camps, houses, or club houses on the islands, but no lease may be given for a period of more than five years. At the end of the five-year term, improvements made on the land became the property of the state. Revenues from Reelfoot Lake are placed to the credit of the Game and Fish Protection Fund.

State game sanctuaries may be established when private landowners or corporations desire to protect the game on their land. An agreement may be made with the State Game Warden to create such a sanctuary for a period of three years, when the area contains at least 5,000 acres. It thereupon becomes unlawful for anyone to kill or capture any of the game within its confines. The State Game Warden may take game or animals from the property for propagation purposes. Lands set aside in this manner are posted as "State Game Preserves."

Two game preserves have been established by special acts. In 1927 the Appalachian Fish and Game Preserve was created in Sevier, Blount, Monroe, and Polk counties. Some of this land is within the confines of the National Forest. The act specifically states that ownership of all game, wild birds, and fish within the

preserve is vested in the state. The appointment of special wardens for this area is authorized, and they are directed to cooperate with the forest rangers employed by the United States Forest Service. Another preserve has been created in Loudon County, Tennessee. Residents of the county are also appointed deputy game wardens to enforce the game laws.

The State Game and Fish Warden endeavors to obtain the enforcement of the game law through the stimulation of a cooperative spirit in the public. The people of the state have been invited to confer with the division to thresh out the many questions which arise. As a result of this policy, the sportsmen's organizations and individuals are assisting in promoting a better sentiment regarding the game laws and in bringing about their enforcement. A new bulletin is also issued, which give the public information concerning the activities of the department and problems of general interest.

Homer Hancock is commissioner of the Department of Agriculture; George R. Calhoun is State Game and Fish Warden. His headquarters are in Nashville.

Texas

Texas has made a beginning in the development of two types of state-owned outdoor areas—forests and parks—and has established a number of leased game preserves. Each of these projects is under a separate administration, and each is making progress in its own field. The game preserve system has been most successful. These preserves are responsible for a large part of the conservation of the state's wild game. With three state forests already created, the expansion of this system should be rapid. It is probable these forests will have in a measure some recreational value. Texas has many possibilities for the creation of state parks of a type which will arouse countrywide interest and attract visitors from other states—areas of magnitude and great beauty. The establishment of one large outstanding park area will undoubtedly mean the beginning of one of the finest park systems in the country.

State Parks

Up to 1925 Texas had only five state monuments—sites of battlefields commemorating historical events. A movement toward the establishment of state parks was initiated in 1923 when Hon. Pat M. Neff, then Governor of the state, recommended to the legislature the creation of a State Park Board.

In that year the legislature established a State Park Board of five members to be appointed by the Governor, who serve without com-

pensation, but are reimbursed for necessary traveling expenses. The board has authority to solicit donations of land for parks and to accept such tracts, subject to the approval of the legislature. It was directed to make investigations of tracts of land suitable for park purposes; to report recommendations and findings to each session of the legislature; and to initiate a movement for the establishment of a State Park System secured either by donation or purchase or established on land owned by the state still available for such use. Each member of the board is held responsible for a certain section of the state.

Carrying out the instructions in the law, the board, in 1924, made four tours of the state, accompanied by Governor Neff. It covered more than 8,000 miles and visited eighty-two counties. As a result of these tours, fifty-one park sites were offered to the state, ranging in size from 10 to 800 acres and donated from a variety of sources. Effort was also made to acquire parks in the Davis and Guadalupe Mountains in the western part of the state.

In 1925 the State Park Board submitted a bill to the legislature for the acceptance of the park areas which had been offered; for the installation of camping facilities in the parks; for the selection of camping places on lands belonging to the State Penitentiary System; for the setting aside of parks on school lands reverting to the state, and for an appropriation of $50,000 to develop the parks and pay other expenses in connection therewith. The bill did not pass and the areas offered were not accepted for park purposes. In eleven instances, the parks were withdrawn for city and county development.

The board then endeavored to secure local support to equip and operate the parks and was successful in a small measure, but not to an extent which permitted of their adequate development. Additional sites were offered, but action on their acceptance was postponed in view of the failure to obtain the support of the legislature. In an effort to finance the development of the parks a contract with a causeway company was considered, under the terms of which 5,000 acres on Padre Island would be turned over to the company to lease as an amusement park and a causeway would be built from some point in Nueces or Aransas County to Padre Island for which toll would be charged. Ten per cent of the receipts from the park project were to be paid to the State Park Board which would use these funds to develop the other parks donated to the state. This project was unsuccessful because of the lack of authority of the Park Board to execute a contract satisfactory to the company.

In 1927 a bill was again presented to the legislature calling for an appropriation for the use of the board and the acceptance of

the gifts to the state. Twenty-four of the fifty-one park areas were accepted by the legislature. The appropriation bill went over to the special session in May of that year, but failed to gain approval. The parks accepted, but for the development of which no appropriation has yet been made, are: [1]

Beeville State Park, 128 acres, 96 miles from San Antonio.
Wayside State Park, 120 acres, about 30 miles from Amarillo.
Sam Mackin State Park, 118 acres, on Meridian Highway.
Mary Campbell State Park, 30 acres, fronts Atascosa River.
Chas. Tips, Jr., State Park, 30 acres, fronts Nueces River.
Foster State Park, 53½ acres.
Big Springs State Park, 200 acres, on the Big Springs Mountain.
Frio County State Park, 50 acres between Dilley and Pearsall on the Frio River.
Crosbyton State Park, 30 acres, fronts on Brazos River.
Van Horn State Park, 90 acres, on Bankhead Highway.
Schreiner State Park, 44 acres, fronts on Guadalupe River.
Robison State Park, 69 acres, fronts on Llano River.
Hillsboro State Park, 35 acres.
John H. Kirby State Park, 100 acres, outside city limits on Sycamore Creek.
Buescher State Park, 100 acres.
Johnson State Park, 50 acres, fronts on Concho River.
Berada State Park, 75 acres near Brownsville.
Ferguson Bros. State Park, 35 acres.
Gardner State Park, 25 acres.
Mayhew State Park, 25 acres, fronts on Sabinal and Frio rivers.
Young State Park, 10 acres.
Caddo Lake State Park, 120 acres.
Womack State Park, 30 acres.
Davis Mountains State Park, 3,000 acres near Fort Davis.

People in the vicinity of San Antonio, it is expected, will donate the land for the Davis Mountain Park. The business men of that city have agreed to pay for materials for the necessary improvement work—the actual work to be done by the Texas State Park Board with state convicts. Practically all of the road work, and other improvement work, in the Texas state parks has been done through the use of convict labor.

The Texas State Park Board consists of D. E. Colp, San Antonio, chairman; Mrs. W. C. Martin, Dallas, vice-chairman; Mrs. Phebe

[1] The State Park Board recommended that no table be used because of the lack of development of these parks.

K. Warner, Claude, secretary; Mrs. James Welder, Victoria, historian; and Hobart Key, Marshall.

State Forests

With an original forested area of 40,000,000 of its over 170,000,000 acres, Texas still has 25,000,000 acres of forest land. There were originally 14,000,000 acres of virgin pine and several additional million acres of hardwood timber. Only a little over 1,000,000 acres of virgin pine remain.

Effort for the conservation of the state's forest resources developed in 1915 in the creation of a State Department of Forestry. The activities of this department were placed under the jurisdiction of the Board of Directors of the Agricultural and Mechanical College. In 1926 the board gave the state forester the title of director and the department the designation of the Texas Forest Service. The major activities of the service relate to forest protection, forest management, farm forestry, the creation of state forests and general educational work.

The forest fire problem is one of the fundamental obstacles to proper reforestation. Every effort is being made to prevent forest fires through educational work, through the active participation and cooperation of all landowners, through the extension of forest fire patrol district boundaries, through the development of an adequate fire lookout tower system and the organization of a large field force. Educational work plays a large part in the work of the service. Forestry moving pictures are shown in connection with fire prevention talks in schools, churches and at rural gatherings. Numerous articles regarding fire protection are published in magazines and newspapers. As a result considerable progress has been made toward securing the cooperation of the public. The lumber companies have cooperated in a very satisfactory manner in protection work. Several companies have contributed one-half of the funds required to develop lookout towers and adequately protect their lands from fire, the Texas Forest Service and the U. S. Forest Service matching such funds. About one-half million acres are now protected in this way while a number of companies with large holdings have such arrangements under consideration. Practically all of the other companies have appointed certain of their employees as voluntary fire wardens with authority to use logging crews for fire suppression.

The activities of the service in forest management include assistance to the timberland owners in planting idle cut-over land, in proper methods of harvesting timber to obtain a second crop and in proper care and handling of timber from seedlings to maturity

to accelerate growth, increase the yield and obtain regular harvests. Several large companies are attempting to place their operations on a permanent basis and the demands on the service for assistance in forest management are greater than can be met with the present personnel. Two forest tree nurseries, now containing one-half million trees, are maintained to grow forest seedlings for sale to land owners at cost of production.

Farm forestry is a cooperative activity of the Texas Forest Service, the Texas Extension Service, and the U. S. Department of Agriculture. It includes protection, management, and reforestation work with the farmer on his woodlands, assistance in planting windbreaks and shelterbelts, and 4-H Club work.

Texas cooperates with the Federal Government under the Clarke-McNary Act, and, during 1928, will receive $30,862 for fire protection and $1,980 for farm forestry extension.

In 1923 the legislature appropriated $20,000 for the purchase of state forests. Two forests were immediately purchased, one of 1,700 acres near Kirbyville and the other of 1,632 acres near Conroe. In 1925 over two thousand acres of timberland formerly owned by the Texas Prison Commission was turned over to the department, giving the state a state-owned forest in each of the three principal pine regions of East Texas. In the spring of 1928 John Henry Kirby gave 600 acres of longleaf pine to the Agricultural and Mechanical College, which is to be managed by the Texas Forest Service. The last legislature appropriated $25,000 with the stipulation that it be matched by an equal amount of private funds for the purchase of a tract of virgin longleaf pine. A committee of prominent citizens headed by the president of the Texas Forestry Association is now raising this money. These forests, which will be developed principally as demonstration and experiment areas, will serve a very valuable purpose. The Kirbyville State Forest has been developed for camping, with no charge for the privilege.

The state plans to acquire state forest tracts aggregating 100,000 acres, located at different points on the commercial timber belt, to be used in a study of methods of forest renewal and management. The Forest Service does not, however, recommend the inauguration of a wholesale land buying policy but desires to encourage private owners to practice forestry on their holdings. This, it believes, will result in the renewal of commercial forests.

The adoption of a constructive state forestry policy is recommended. The main factors in this policy are the encouragement of private ownership and initiative to bring about the renewal of the forests, and the adoption of a constitutional amendment per-

mitting the legislature to enact laws pertaining to the taxation of growing timber crops and the nonagricultural soil upon which they are grown in order that forest crops may be taxed as are other crops from the soil. The expansion of the state forest system is also urged.

The appropriation for forestry work for the current year is $76,700.

E. O. Siecke is Director and State Forester. His headquarters are at College Station.

Game

There has been little change in the administrative agency in Texas since the beginning of effort to conserve the wild life of the state. The office of Fish and Oyster Commissioner was established in 1895, and, in 1907, its jurisdiction was extended to game. Up to 1923 wild life had dwindled to the lowest ebb in the history of the state, although fish and game laws had been in the statutes for fifty years. In 1923 ample appropriations were made for the employment of game wardens. There are now about one hundred wardens.

Since that time the commission has become self-supporting. Its work is carried on through proceeds from the sale of hunting and fishing licenses, and taxes from the sale of mudshell, sand and gravel from public waters. Expenditures during 1928 will reach approximately $420,000, which will include the cost of patrol and the building and maintenance of fish hatcheries.

A program of education and an appeal to the general public for cooperation has been successful. A division of education and research is maintained. The newspapers are given concise reports of what the department is doing. Lectures are given in the schools, where wild game films are shown. Every means is used to spread the doctrine of conservation.

The drain on the wild game of the state and the ownership by private individuals of the best shooting grounds brought about a great need in Texas for the establishment of state game preserves and public shooting grounds. In 1924 a recommendation was made for a universal hunting license in order that sufficient funds for the establishment of game sanctuaries and public shooting grounds might be secured. In 1925 the creation of game preserves was authorized by law and now over two million acres have been set aside. The leases run for ten-year periods and the areas have been ceded to the state for this purpose without cost.

The game preserves are as follows:

Garza County, 65,000 acres.
Randall County, 81,465 acres.
Shackelford and Haskell counties, 64,951 acres.
Jeff Davis and Brewster counties, 377,969 acres.
Hudspeth County, 131,296 acres.
Pecos and Terrell counties, 374,653 acres.
McLennan, Limestone and Hill counties, 11,715 acres.
Sutton County, 46,601 acres.
Gray, Carson, Hutchinson and Motley counties, acreage unknown.
Floyd and Motley counties, 21,000 acres.
Hill County, 14,365 acres.
Presidio County, 127,987 acres.
Culberson County, 100,351 acres.
Val Verde County, 115,745 acres.
Hartley and Oldham counties, 187,908 acres.
Fisher, Jones and Stonewall counties, 19,000 acres.
Taylor County, 26,800 acres.
Fort Bend and Harris counties, 11,126 acres.
Baylor County, 70,000 acres.
Wilbarger County, 70,400 acres.
King, Foard and Knox counties, 170,200 acres.
Zavalla County, 67,300 acres.
Callahan, Taylor and Coleman counties, 72,391 acres.
Kenedy County, 27,700 acres.
Starr, Jim Hogg, Hidalgo, Kenedy, Kleberg, Jim Wells, Brooks and Willacy counties, with aggregate acreage of 414,314 acres.
Uvalde County, 22,500 acres.
Palo Pinto County, 21,814 acres.
Angelina County, 26,652 acres.
Haskell County, 13,536 acres.
Eastland County, 15,051 acres.
Limestone County, 28,000 acres.
Houston and Trinity counties, 20,000 acres.
Johnson County, 8,042 acres.
Fannin County, 16,345 acres.
Hemphill County, 16,000 acres.
Harris County, 6,207 acres.
Walker and San Jacinto counties, 15,443 acres.
Burleson County, 9,204 acres.
Mason, Schleicher, Menard and McCulloch counties, 135,506 acres.
Parker County, 5,821 acres.

This system has been most successful, and the overflow of game on the preserves is stocking the surrounding country. No hunting is permitted. The increase of quail in particular has been state wide. Farmers and ranchers have joined in the general effort to bring game back. The present supply of quail, prairie chicken, turkey and deer is believed to be greater than at any time for the past fifteen years.

William J. Tucker is Game, Fish and Oyster Commissioner, with headquarters at Austin.

Utah

Utah has many thousands of acres of Federal-owned land open to the public and providing recreation for the many tourists who annually visit the state. This probably is the prime reason why the movement for state-owned reserves has not made more rapid progress. There are no state forest laws and no state forester. It has been the policy of the state not to attempt to acquire forested land but to leave this to the Federal Government. Practically all the forested land is included in the national forests. A number of game preserves have been created, though again not on state-owned lands as they lie mostly within the national forests. And with many places of great scenic value Utah has as yet no state parks. However, a start toward this end has been made.

State Parks

The idea of the creation of state parks is of comparatively recent origin. Representative Joseph Hickman, of Wayne County, introduced a bill in the 1925 session of the legislature for the creation of a state board of park commissioners. It passed both houses and was approved by the Governor May 12, 1925. The act provides that the board shall consist of the Governor, the president of Utah Agricultural College, and two other persons to be chosen by the members named. The members of the board serve without compensation and hold office for a term of four years. No appropriation was made, but a provision was inserted that actual expenses incurred while carrying out the provisions of the act shall be paid from the funds set aside for the offices of the Governor and the presidents of the university and college.

Any parks which may be acquired, whether by purchase or gift, will be administered by the board. It has authority not only to

accept gifts of land or money, but to purchase areas of sufficient natural, historical, or lofty scenic quality as to justify such action if an appropriation is available.

The 1927 legislature appropriated $10,000 for the rehabilitation of Utah's first state house at Fillmore. The deed to this ground and to the building has been turned over to the state. While this unquestionably comes under the status of a state monument, it can likewise be considered as the first forward step in their park program.

There are a number of areas in the public domain which have been recommended to the state for investigation for state park possibilities but no definite action has been taken toward their acquisition. These tracts were located by the Joint Committee on Recreational Survey of Federal Lands, representing the American Forestry Association and the National Parks Association, and were called to the attention of the National Conference on State Parks, which, in turn, brought them to the attention of the State Park Board. Among the lands suggested as worthy of investigation were Buckship Gulch, where occur numerous curious and interesting geological formations which in the years to come will render southern Utah a great attraction for the sightseeing tourist; the Fillmore Ice Cavern, near Fillmore; the Flaming Gorge of the Green River, with walls of red sandstone 1,000 feet high; and natural bridges and other scenic attractions in Capiton Reef near Fruita. Utah has many places of scenic, geological and archæological interest, which offer excellent possibilities for state park developments.

The members of the commission other than the Governor are Dr. George Thomas, president of the University of Utah; Dr. E. G. Peterson, president of the Agricultural College; Lafayette Hanchett, of Salt Lake City, and Randall Jones, of Cedar City. Mr. Wm. T. Igleheart is the secretary.

Game

The administration of the fish and game laws of the state is under the charge of a state fish and game commissioner. The office was established in 1890, reorganized in 1897 and again in 1899. From 1897 to 1899 the title of the office was State Fish and Game Warden.

The fish and game commissioner is appointed by the Governor, by and with the consent of the senate. He has charge of the supervision of the waters, forests, and lands of the state for fish and game purposes and has full control of all property of the state obtained for the carrying out of the game and fish laws.

A fish and game fund was created by the 1927 legislature, made up of all moneys collected from the sale of licenses for hunting and fishing and the net moneys collected from fines and forfeitures for violations of the fish and game laws. This fund is used by the commissioner in carrying out the purposes of the fish and game law.

Thirteen extensive game preserves have been created by legislative action. While grazing of live stock is not restricted on these areas, shooting of all kinds is prohibited. The strict enforcement of this law resulted in a great increase in deer throughout the state, which it was feared would create a serious grazing problem. To solve this problem the 1927 legislature created a state game refuge committee, consisting of one representative each from the state sportsmen's association, the woolgrowers association, the cattle growers' association, the forest service, the public park commission and one member of each board of county commissioners in whose county there is located a game preserve. The state game commissioner is on the committee and acts as chairman. The committee has authority to fix and to reestablish the boundaries of state game preserves and to declare an open season thereon for the killing of big game. The law provides that private lands may be included in the preserves only with the consent of the owners. When the necessity for an open season has passed the committee may close the preserves to all kinds of shooting.

The refuge committee has recently conducted a survey of the state with a view to establishing more small refuges. The Dixie Preserve in the southern part of the state was reduced by the elimination of 265,000 acres. Portions of a number of the refuges were opened to hunting for a twelve-day period.

The state game refuge committee also constitutes a state board of elk control, a board created by a former act for the purpose of reducing the number of elk in the state and to secure a better distribution of the animals. It was because of the success of the work of this board that the creation of the present refuge committee was recommended.

The preserves created are:

The Heaston Game Preserve, in Salt Lake and Tooele counties;
The Cache State Game Preserve, in the Cache National Forest;
The Dixie State Game Preserve, in the Dixie National Forest;
The Fish Lake State Game Preserve, in the Annabella Division of the Fish Lake National Forest;
The Mount Ogden Game Sanctuary;

The Strawberry Valley Game Preserve, in Wasatch County;
The Big Cottonwood Game Preserve, in the Wasatch Forest;
The Timpanogos Game Preserve, in the Wasatch National Forest;
The Ashley Game Preserve, in the Ashley National Forest;
The Gentry Mountain Game Preserve, in the Manti National Forest;
The Parowan Game Preserve;
The Crescent Canyon Game Preserve;
The Pleasant Creek Game Preserve.

The establishment of public hunting grounds has been authorized, through the use of money from the fish and game fund. A public shooting ground in Bear River Bay, Box Elder County, has already been secured by purchase and by withdrawal from entry by executive order. The area is approximately 17,000 acres in extent and is used as a breeding and nesting ground for migratory wild fowl as well as for shooting.

The Fish and Game Commissioner is J. Arthur Mecham, with headquarters at Salt Lake City.

Vermont

Vermont is one of the few states in which state parks and forests are administered by the same authority. This work started in 1909, with the creation of a state forest service. Several park areas, in which no cutting of timber is permitted, have been reserved. The state forests, as well as these parks, are developed for recreation as well as timber production. Provisions for the conservation of the wild life of the state were made as far back as 1892, and this work has also been successful since the game in the state is gradually increasing.

State Parks and Forests

State parks and forests in Vermont are under the administration of the State Commissioner of Forestry. The importance of forestry was first recognized in 1909, when a state forest service was created, with Austin F. Hawes, now Forester of Connecticut, as the State Forester. The first state forest was purchased in 1910. It was named for Professor L. R. Jones, who did more than anyone else to secure the legislation which started this movement. In 1923 an amendment by the legislature created a commissioner of forestry. The commissioner is appointed by the Governor. It is the duty of the commissioner to direct all forest interests, to manage the state

forests and parks, cooperate with and advise forest land owners, and make expert studies relating to forest conditions. With the consent of the Governor, the forester may purchase lands for state forests.

Forestry work in Vermont consists of fire prevention, reforestation, white pine blister rust disease control, farm forestry, forestry education and marketing. A forest fire prevention system of wardens, lookouts, and patrols is maintained by the state. Two forest tree nurseries are managed, and trees are sold to planters at cost. Demonstrations in forest planting and thinning are held in the various counties. Information regarding the value of forestry is brought to the attention of the public through lectures, exhibits and publications. The service also aids timberland owners to market their forest products through publications and personal service.

Farm forestry extension is largely an educational problem. The work consists primarily in interesting the owners of unimproved land in reforestation, in securing better forest practice on existing farm woodlots, and in teaching the boys and girls the rudiments of forestry work through 4-H Clubs. Ten clubs have been organized in six counties of the state and the Extension Forester spends one day each month with each club conducting the work. Extension work is planned for each county in the state and is under the direction of the State Extension Service and Forest Service, cooperating.

With a forestry area of 3,000,000 acres, Vermont has only a little over 33,000 acres in state parks and forests. There are fifteen state forests with an area of 32,238 acres, and three state forest parks, with an area of 1,492 acres. The state forester recommends that at least 100,000 acres of state forests and parks be set aside, although larger appropriations will have to be made before they can be established.

The forests already created have been secured through annual appropriation and gift. They are developed for recreation and camping facilities, trails, and roads. Permanent summer homes can be leased under special use permits. Camping is free for two weeks. A fee of $10 is charged for a longer period. A $10 yearly rental is also charged for permanent camp sites. Policing of the forests is under the forest fire rangers. No concessions have been granted. There is as yet little winter use of the parks and forests.

In establishing state parks and forests the commissioner has several requirements in mind. The land must be capable of producing a good forest growth. It must be easily accessible to the public. State forests, as well as the parks, are selected as far as possible to preserve the beauty of the state's scenery. The state forests may be used as recreational areas and hunting grounds, or, where necessary, sections may be set aside as game refuges.

Progressive forestry legislation was enacted by the 1927 General Assembly. One act provides for the establishment of a definite policy for the scenic and recreational development of Vermont and authorizes the creation of a Commission on Conservation and Development to consist of the Commissioners of Forestry and Fish and Game, and of three persons to be appointed by the Governor. This commission was directed to make a correlative study of the methods of development and conservation necessary to perpetuate Vermont's natural resources and recreational areas. The commission is to report its findings and recommendations to the 1929 General Assembly. The Commissioner of Forestry was also authorized to purchase land for forest tree nurseries. It is anticipated that within two years the annual output will be increased from 2,000,000 to 5,000,000 transplants. Another act gives the Governor authority to prohibit the starting of fires for any purpose on land adjoining forest land when there seems to be danger of fires because of extreme drought.

The appropriation bill provides $24,500 for general forestry for the next two years, an increase of $2,000; and $8,000 for state forest purchase, an increase of $6,000.

From the recreational standpoint, one of the most valuable of the forests of Vermont is the Battell Forest, of approximately 30,000 acres, donated to Middleburg College by the late Joseph Battell. These lands are located along the highest summits of the Green Mountains, east of the town. There are many acres of primeval spruce forest. The college has a trained forestry personnel which administers the area along the lines of good forestry practice, insuring the perpetuation of valuable forest growth. By the will of Colonel Battell, 10,000 acres is to be always reserved as a park. The public is permitted to hike, camp, hunt and fish in the entire area without charge. The only exception is at Lake Pleiad, where a charge of $1 per day is made for fishing and camping. Permanent camps are not permitted, but shelters are open to the public.

The state pays taxes on forest lands to the towns in which they are located. These taxes amount to approximately $3,000 a year.

Vermont cooperates with the Federal Government under the Clarke-McNary Act, and during 1928 received $7,028 for forest fire protection, $2,000 for the distribution of forest planting stock, and $1,860 for farm forestry extension.

Robert M. Ross is Commissioner of Forestry, with headquarters at the State House in Montpelier.

Game

Game work is meeting with increasing success in Vermont. Interest in the conservation of wild life developed as far back as 1892, when through a reorganization of the Fish Commission, it was given jurisdiction over game protection. The present Department of Fish and Game was established in 1904.

Under the law creating the department, the Governor is authorized, with the advice and consent of the senate, to appoint a state fish and game commissioner. The commissioner has charge of the propagation and distribution of fish and game, of the establishment of game refuges and sanctuaries, and the enforcement of the game laws.

The work of the department is supported from the income received from the sale of hunting and fishing licenses. During the 1926-27 biennium this income averaged $90,000 per annum. This amount is covered into the state treasury, and the department receives its funds from an appropriation bill passed by the General Assembly, which is based on the commissioner's budget as presented to the Committee of the Assembly.

The warden service is composed of a chief warden and fourteen state wardens, all appointed by the commissioner. Deputy wardens may be appointed at the discretion of the commissioner. Only a limited number are actually employed, and they, together with the state wardens, work on a full time salary basis. The state-wide warden service is supplemented by a force of volunteer wardens appointed on recommendation of the fish and game organizations of the state.

The sportsmen of Vermont cooperate generously in the conservation of game. There are now sixty organized clubs within the state. They have aided the authorities with donations of money and in arousing interest in their communities in obeying the game laws.

The Governor has authority to issue a proclamation suspending an open season and declaring a closed season for such time as he may designate, when, because of drought, forest fires, or for other reasons, he believes it necessary to protect the game. He may reopen the season whenever he believes the need has ceased to exist. When a closed season is declared by the Governor, all provisions of the law relating to closed seasons are in force.

One of the most interesting of the laws of the state relates to open zones for deer around commercial orchard enterprises. Upon request of the owners of a commercial orchard of ten acres or more, the commissioner may establish an open zone around such an orchard

within the boundaries of which wild deer may be hunted or taken at any time. Notice of the establishment of such a zone is given through newspaper publicity. When a wild deer within a zone is killed, the proprietor of the orchard and the county fish or game warden must be notified, and report is then made to the commissioner. The state is not liable for any damage done by the deer to crops, fruit trees, or shrubbery within the zone.

The commissioner may issue permits to landowners for the establishment of farms for the propagation of fish, game, and fur-bearing animals, upon payment of a fee of $2 and an additional fee for tagging, to be fixed by the commissioner. The owners of propagation farms may sell and transport fish, game, and fur-bearing animals at all times, both alive for propagation, and for food.

When an owner desires to protect land or water over which he has exclusive control, he may place notices not less than two feet long and one foot wide, stating that shooting and trapping are prohibited. These notices are to be maintained upon every 25 acres of the premises, and show the date on which the waters were stocked. No fish, game or other animals can be removed.

State game refuges are authorized under the game law, the commissioner having authority for a specified period of years to prohibit or regulate the taking of birds or animals on public lands set aside with the approval of the Governor, or on private lands set aside with the consent of the owner for game refuges.

The State Game Refuge, or Wild Fowl Sanctuary, was established in 1919. It is located at the mouth of the Lamoille River on Lake Champlain and covers an area of 900 acres. It has become an excellent nesting and feeding place for migratory wild fowl. During the open season for wild fowl a restricted area of lake waters is open to public shooting.

Several game refuges have been established under the law, but no provision has been made for their supervision or for vermin control, consequently they are not considered satisfactory. The present commissioner has a clearly defined policy for the establishment of sanctuaries or refuges on state-owned lands, such refuges to consist of a central area of three or four hundred acres, with the surrounding territory open to hunting at certain seasons.

Among the birds and game which are native to Vermont are ruffed grouse, quail, woodcock, ducks, rabbit and deer. The ringneck pheasant has been introduced and is increasing.

Linus Leavens is commissioner of the Department of Fish and Game, with headquarters in Montpelier.

Virginia

There are a number of possibilities for state parks of scenic value or large recreational use, and historic interest, in Virginia. However, all effort in the state is concentrated on the establishment of the Shenandoah National Park in the Blue Ridge Mountains, a problem which is absorbing all the energies of the authorities. It is probable a constructive policy of state park development will be adopted when the proposed national park has been consummated.

Authority to acquire land for state park purposes is already vested in the Commission on Conservation and Development, which has full power to acquire by "gift, purchase or the exercise of eminent domain, areas, properties, lands or any estate or interest therein, of scenic beauty, recreational utility, historical interest, remarkable phenomena, or any other unusual features" which in the judgment of the commission should be preserved. The commission, however, cannot purchase property without specific appropriations for the purpose.

The Commission on Conservation and Development was created by the legislature of 1926, and includes within its scope all activities of the state dealing with forestry, parks, geology, water resources and power, archæology, and the advertising of Virginia's natural resources. It does not include the fish and game work. The commission consists of seven members, appointed by the Governor for a term of four years, who receive no salary, but an allowance of $10 per day each for actual service on the work of the commission. The members of the commission are William E. Carson, chairman, Riverton; Coleman Wortham, Richmond; Junius P. Fishburn, Roanoke; E. Griffith Dodson, Norfolk; Rufus Roberts, Culpeper; Thomas L. Farrar, Charlottesville, and Lee Long, Dante. Elmer O. Fippin is executive secretary, and the office is at Richmond.

When the state government was reorganized in 1927 the Commission of Game and Inland Fisheries and the Commission of Fisheries and the Commissioner of Fisheries with the Conservation and Development Commission, were placed together in a Department of Conservation and Development. There is no single head of this department. The three commissions, under the law, must meet at least twice a year in conference, in order that cooperation may be promoted and duplication of work avoided.

State Forests

State forestry work began in 1914, with the creation of the office of state forester, and provision for the purchase and administration of

state forests. This work was coordinate with the Geological Survey, and was under the direction of the Geological Commission. No appropriation was made prior to the meeting of the legislature of 1916, but there was a proviso in the law that the expense of the work until that time should be born by the University of Virginia. Forestry work was organized on March 1, 1915, at a cost to the University of something over $5,000 for the first year. The legislatures of 1916 and 1918 provided for the continuation of the work by direct appropriations of $10,000 each year, and since then the appropriation has steadily increased, reaching $30,000 for 1927. The university has since 1916 provided a tract of land for the state forest nursery. In October, 1926, upon the creation of the State Conservation and Development Commission, jurisdiction over the state forestry work passed to that body.

Virginia cooperates with the Federal Government under the Clarke-McNary Act in fire protection, nursery work, and extension work in farm forestry. During 1928 it will receive $30,991 for fire protection work, $1,900 for the distribution of forest planting stock, and $1,500 for farm forestry extension.

Studies of the forests of various counties have been successfully made, educational work has been carried on, and forest nursery work has been most successful.

Although legislation enacted in 1914 provided for the purchase and management of state forests, no appropriations have as yet been made for carrying this legislation into effect. The one state forest, in Prince Edward County, was given to the state by E. D. Gallion. The state forester cooperates with the game department in the care of game on this property, which is treated as a game sanctuary.

From the beginning of forestry work Chapin Jones has held the office of State Forester, with headquarters at the University of Virginia in Charlottesville.

Game

The necessity for the protection of fish in the waters of the state was recognized as early as 1875, when the office of commissioner of fisheries was established. In 1916 the Commission of Game and Inland Fisheries was organized, extending the jurisdiction of the commissioner to game.

Virginia has no state-owned permanent sanctuary, since the preserve at Roanoke has been abandoned, other than the state forest. However, a game farm of 1,400 acres, in Kent County, was purchased in 1919 at about $13 an acre.

The commission is now considering the acquisition, by leasing the hunting privileges, of public shooting grounds of 10,000 acres in each of the ten congressional districts. If these grounds are acquired they will be stocked from the game farm and from the auxiliary sanctuaries, which have an overabundant supply of game. Seeds will be planted each spring to guarantee an ample food supply.

The commission has adopted the policy of accepting limited areas of from 1,000 to 3,000 acres of privately owned land for sanctuaries and refuges. There are now 226 privately owned sanctuaries with an aggregate area of 214,689 acres—187 tracts consist of 300 acres and over, with a total acreage of 207,996; and 39 tracts have less than 300 acres. Seven refuges, consisting in all of 19,700 acres, have also been established on property owned and controlled by the United States Government, bringing the total acreage of refuges to 234,389 acres. The owner of land within these sanctuaries is expected to keep the vermin in check. Full-time gamekeepers are employed on six of the United States Government refuges, who are engaged in patrolling duty, forest fire protection, and vermin control.

The following refuges were established in the spring of 1928:[1] The Jerkemtight refuge in Bath County, well stocked with deer, bear, wild turkey, grouse and quail; Benson's Run refuge, in Highland County; Ramsey's Draft refuge, in Augusta County, which has a plentiful supply of wild life; North River refuge, in Augusta County; and Little River refuge, in Augusta County, situate in an ideal game territory. These refuges range in size from 2,000 to 3,000 acres each. They are surrounded by excellent hunting territory, which will be open to the public. The area within the enclosure will serve as a refuge and restocking reservoir, the surplus game flowing into the adjoining sections. The system of establishing small refuges of this character, surrounded by land open to the public for hunting, will be followed in other sections of the state.

The first game preserve on state-owned land has just been created by the state. It consists of approximately 600 acres of the Gallion State Forest in Prince Edward County, near Green Bay, a gift from the late E. B. Gallion. This tract was the first gift of its kind to the state. The forest will remain under the administration of the state forester but will be stocked by the Commission of Game and Inland Fisheries.

The members of the commission are A. Willis Robertson, chairman, Lexington; Samuel P. Goodlow, Afton; Allan Epes, Blackstone; Wm. S. Snow, Alexandria; Beverly W. Stras, Jr., Tazewell.

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[1] A list of the other refuges was not available.

The executive secretary is M. D. Hart, and the office is in the state office building at Richmond.

Washington

The program of this state in the development of state-owned areas is advancing rapidly and covers the three phases of park, forest and game preservation, though under different administrations. State forests have been acquired and the addition of other lands is anticipated. The game system is a complicated one, but it works out admirably and the setting aside of state-owned preserves is planned. There is the beginning of a splendid state park system. Although not as yet including any of the wonderful and majestic mountain peaks that abound throughout the Cascades and Olympics, several of the tracts already set aside contain beautiful and outstanding scenery. Given funds for acquisition and development, Washington will soon possess one of the outstanding state park systems of the country.

State Parks

The state park movement originated when the Commissioner of Public Lands, C. V. Savidge, obtained authority from the legislature of 1919 to set aside tracts of state land not to exceed five acres in extent for public parks. Later in 1919, fostered by the Washington Natural Parks Association, a voluntary organization, acting in cooperation with influential citizens, a law was enacted by the legislature creating the State Parks Committee and giving it authority to acquire, maintain and develop a state park system. The committee is composed of elective officers—the Commissioner of Public Lands, the Secretary of State, and the State Treasurer.

Under the law the State Park Committee has authority to purchase, lease and accept gifts of land for park purposes, with the provision that land purchased must abut upon a public highway actually constructed, located or projected. Should it be desirable to acquire land not on a public highway, the acquisition must be specifically authorized by the state legislature. The committee also has authority to condemn land it desires for park purposes, should it prove impossible to purchase a necessary tract at a price it deems reasonable. Condemnation proceedings are to be conducted by the Attorney General.

Timbered lands may be withdrawn from sale by the Commissioner of Public Lands on his own motion and must be if the committee so directs. When once withdrawn they can not be sold without legisla-

tive consent. In the meantime they are subject to the control and supervision of the committee.

Any state-owned land, or land acquired from the United States, which is not subject to limitations as to manner of sale or disposition of funds, may be exchanged for other lands of equal value along public highways, and the chairman and secretary of the State Park Committee are empowered to issue deeds of conveyance.

The greater portion of the lands now held in park ownership have been obtained by gift. Only 92 acres have been secured by condemnation, and, as there was no contest in this instance, only the value of the land being involved, the experience of the committee in this method of acquisition is very limited. School lands, tide and shore lands have been transferred to the adminstration of the State Park Committee for park purposes, and the Commissioner of Public Lands has authority to make such transfers and may be directed to do so by the State Parks Committee. One United States military reservation, now the Deception Pass State Park, has been transferred to the state for park purposes, and Congress authorized the sale at a minimum price of $1.25 per acre, of another parcel of Government land. No bonds have been issued or authorized for state parks and this method is not favored by the state. However, in 1925 the Natural Parks Association asked the legislature to pass a $1,500,000 state park bond issue act, but this effort failed because of the decision to shorten the session.

Washington is badly in need of sufficient appropriations to properly administer and develop her park system. To carry out the purposes of the park act the sum of $50,000 was appropriated at the time of its passage. Funds for park use have since been deposited in the state and parkway fund, out of which the legislature makes regular biennial appropriations. This fund now is made up of 75 per cent of the fines and forfeitures collected for violation of the motor vehicle act, outside incorporated cities and towns; fees collected from concessions in state parks; from automobile campers; and donations of cash to the fund. The latter is of slight importance. Practically all the funds for administration come from the first source, and this fund is a fluctuating one and one which has seriously diminished during the past few years. If the activities of the highway patrol, result in bringing the total fines and forfeitures to an amount equal to the appropriations, then the parks and parkway fund is entitled to that amount of money, but in no event to exceed the appropriation or the amount earned. In 1923 the legislature appropriated $125,000 out of the fund, expenditures, of course, to be restricted to whatever

money was in the fund. Up to September, 1924, only a little over $40,000 had been paid into the fund and this was not all available at any one time. In 1926 the State Park Committee endeavored to have the legislature authorize funds from the drivers' licenses, but was unsuccessful. At the last session of the legislature special bills appropriating $225,000 for park purposes were passed, but both measures were vetoed by the Governor, leaving the State Parks Committee with only $50,000 for the biennium ending 1929. And this sum will only be available should the total of fines and forfeitures for violation of the motor vehicle act, together with receipts from the parks, reach that amount.

The Superintendent of Parks has recently recommended that efforts be directed toward amending the provisions of the law providing funds for park work so that all fines and forfeitures for offenses committed within or without incorporated towns and cities shall be paid into the state park and parkway fund. This, it is thought, would more than double the present income.

Camping is permitted in all state parks but there is no hotel development. A fee of 50 cents per car per night is charged, since tourists are provided with water, sanitary facilities, stoves, wood and police protection. Lunch and picnic parties are permitted to use the parks free of charge. Concessions are granted in some instances covering groceries, ice cream, confectionery, boating and bathing. These concessions are awarded upon such terms as the committee believes desirable, but not for longer than five years.

The caretakers of the park, and other employees whom the committee may care to designate, are vested with police powers to enforce the laws and the rules and regulations. Among the regulations are the prohibition of firearms and unleashed dogs, and provisions against injuring or destroying trees or shrubs, property in the park, and the building of fires, except in specially designed places.

There is no admission charge to state parks. The committee has found some objection to the charge of a camping fee, but this seems to be due to an erroneous belief that the parks are supported through taxation.

The addition of park areas to the present holdings is discouraged by the State Parks Committee, until the state has funds available for their adequate administration and development.

The Washington State Parks Committee is composed of Clark V. Savidge, chairman, Commissioner of Public Lands; J. Grant Hinkle, Secretary of State; and W. G. Potts, state treasurer. Harry A. Young is the State Park Superintendent, with offices in Olympia.

Proposed Parks

Several tracts are definitely recommended by the State Park Superintendent for inclusion in the park system. These proposed parks contain all the features necessary to make them ideal for such use, and it is hoped ample provision will be made by the legislature for their acquisition.

The Dry Falls of the Grand Coulee, located westerly of Coulee City, Douglas County, is one of the most interesting. The Coulee itself is cut from 700 to 1,000 feet deep, in many places through solid rock. The Dry Falls drop several hundred feet, the estimated depth of water at the crest just previous to the drop being over 50 feet.

Palous Falls, northeast of Pasco, will be added to the state park chain, if the efforts of citizens in the locality to acquire sufficient land for a state park are successful. The falls are approximately 200 feet high, and present a scene of beauty and charm.

Another proposed park in Steptow Butte, a few miles north of Colfax, from whose summit a most commanding view of all the southeast is visible.

One of the large U. S. military reservations in the state is to be abandoned by the War Department and offers an excellent opportunity to add to the park system. Fort Townsend Military Reservation is situated on Port Townsend Bay, Jefferson County, and contains 614 acres. This reservation is easy of access, with plenty of timber and good water, and of good recreational possibilities, though not of great scenic beauty.

A Forested State Park

Due to the unselfish interest, the enthusiasm and the public-spiritedness of the Washington Federation of Women's Clubs, another beautiful spot has been added to the state park system.

Realizing the importance of acting while there remained a few stands of virgin timber this Federation of Clubs for several years has been heroically working for the preservation of a magnificent stand on the Sunset Highway between Camp Joy and Denny Creek. The area comprises approximately 62 acres and contains many magnificent specimens of Douglas fir, and a splendid stand of cedar, hemlock, annabilis fir, and a small amount of white pine. Located on the Sunset Highway which bears the burden of traffic between eastern and western parts of the state, this park will afford enjoyment to great numbers of people.

In February, 1926, Mrs. Jeanne Caithness Greenlees, chairman of conservation, urged the support of the clubs of Washington in raising the necessary funds. One of the first subscriptions was made by Hon. Stephen T. Mather, director of the National Park Service, who became interested in the project while temporarily in the state of Washington. In addition to funds raised through popular subscriptions, trees in the tract were sold for $100 each, the purchaser being allowed to choose a tree and place upon it a metal plate bearing his or her name, or to dedicate it to the state. In addition "Save a Tree" buttons were sold at $1 each. So popular was the movement that $17,000 of the purchase price of $30,000, came from 17,000 people. Early in December, 1927, when there remained only $1,500 to be raised to complete the purchase, the board of trustees of the National Geographic Society made a grant of $1,000 of this sum to the federation. The State Park Committee completed the purchase through the contribution of the last $500.

State Forests

With a land area of over 42,000,000 acres Washington originally had 22,000,000 acres of forested area. It still has a little over 14,000,000 acres of virgin timber, of which the state owns 1,115,000 acres. These lands are scattered throughout the forest region of the state and interspersed with privately owned lands.

Forestry work was inaugurated in 1905 by an appropriation of $7,500 to cover the cost of protection for two years. The State Board of Forest Commissions was created at the same time. It was later transferred to the Department of Conservation and Development. The State Forest Board was established in 1923. It consists of the Governor, the Commissioner of Public Lands, the Dean of Forestry of the State University, the Director of Conservation and Development and the State Supervisor of Forestry. The Governor is chairman and the Commissioner of Public Lands is secretary. Members of the board receive no compensation for their services, but are reimbursed for expenses incurred in the performance of their duties.

The board has the authority to acquire state forests by purchase or gift. It can not, however, pay more than $2 per acre for lands suitable for forest growth, but devoid of it; nor more than $6 per acre for land well stocked with young growth or in a satisfactory natural condition. For the purpose of acquiring forest land the board had authority to issue utility bonds of the state in an amount not to exceed $200,000 during the biennium ended March 31, 1925. The principal and interest of these bonds was to be paid from the forest development fund.

The act creating the board appropriated from the reclamation revolving fund $12,000 to pay the cost of administering the act and any interest on bonds. Any sums necessary for these purposes were to be transferred to the forest development fund, also created by the same act. The state treasurer is the custodian of the fund, but no money can be withdrawn without the consent of the forest board.

Washington has three state forests. Immediately upon the organization of the board, the Department of Conservation and Development transferred to it 4,477 acres of land it had purchased in 1921. In that year the department was given an appropriation of $5,000 from the reclamation revolving fund to purchase lands suitable for reforestation. The lands were secured for $1 per acre. The Weyerhauser Timber Company had donated to the state 5,004 acres for state forests, and these lands were also transferred to the forestry board. Part of this gift was added to the forest in Pacific and Wahkiakum counties, and the remainder, 1,760 acres, formed the nucleus of a second forest established in Grays Harbor County.

The forest in Clarke and Skamania counties was created through the purchase of 8,351 acres from the Northen Pacific Railway Company at $1.24 per acre. Payment was made in state forest utility bonds. The bonds carrying 3½ per cent interest per annum and mature in 75 years with the privilege of paying them sooner if desired. Government lands were also secured adjacent to this land. Several thousand acres of unappropriated Government land suitable for reforestation were filed on as indemnity lands by the Commissioner of Public Lands, thus adding them to the forest without cost.

Another avenue for the addition of state forests was opened through the passage by the last legislature of an act authorizing the state to accept from counties tax lands suitable for such use.

Compact areas susceptible of administration as state forests are being acquired through exchange. When the national forests were established in Washington they included unsurveyed school land amounting to almost half a million acres, practically all timbered. The Commissioner of Public Lands, C. V. Savidge, visited Washington in 1913 to press the claim of the state with the Federal Government, with the result that an agreement was reached to cruise the timber on the state's scattered sections and agree upon the valuation of the species. The state was to receive in solid blocks as nearly as possible the value of timber and an area of land equivalent to the school lands. To date title has passed to the state on approximately two-thirds of the land in nine blocks. The remainder is being rapidly cleared up.

This state at the present time is not taking any action looking to the use of its state timber lands as recreational centers. The activities of the state in this regard are confined to the state parks. It will probably not be many years until the state will take some action looking to the recreational features of its lands. Under the present management, however, campers are not prevented from entering the state's timbered lands. One magnificent tract on the west coast of the Olympic Peninsular is particularly suitable for recreational development, as it consists of more than two hundred square miles of wonderful timber and forest country.

Should the legislature create state forests of the areas aquired through exchange, such forests probably will be used for recreation. At the present time there are no plans for the use of the state's timber lands as recreation centers, and such activities are confined to the state parks. However, it will probably not be many years before the state takes some action to provide recreational opportunities on its forest lands.

The state cooperated with the Federal Government under the Clarke-McNary Act and will, during 1928, receive an allotment of $69,155 for fire protection and $2,000 for the distribution of planting stock. It is given assistance by the U. S. Interior Department in the protection of its lands. Five organizations also aid the state in the protection of privately owned lands, which lands are assessed by the state. The money so raised is paid to these agencies for carrying on the work.

The State Forest Board consists of Governor Roland H. Hartley, chairman; Hugo Winkenwerder, Dean of Forestry, University of Washington, vice-chairman; Clark V. Savidge, Commissioner of Public Lands, secretary; Erle J. Barnes, director, Department of Conservation and Development, and George C. Joy, Supervisor of Forestry. The headquarters of the department is in Olympia.

Game

Washington's game system is complicated but one which, we understand, functions admirably in that state. Effort for the preservation of game began before 1897 through participation in the League of American Sportsmen, a national organization with headquarters in New York. The dues in the league were 40 cents of each member's fee and when the fees amounted to real money the Washington section decided to keep that money at home, broke away from the parent body, and organized its own association with headquarters in Seattle. The larger share of the funds came from King County, the strongest section in the state association. After a time

King County began to wonder why she should contribute funds to be spent all over the state, finally organizing her own chapter. This chapter, which was a strong one and really accomplished much good work, later organized the game commission in King County. This was the first county game commission in the state. The plan developed until Washington had game commissions in all but a few of the counties, where sufficient licenses are not granted to justify such a commission. Then the Game Code of 1915 was enacted and, under its provisions, game commissions were created in each county.

Sentiment early developed for the creation of separate game and fish commissions but the legislature would not create a state game commission. However, the office of game warden was established in 1890, and in 1899 the state fish commissioner was made the game warden and continued to hold this office until 1921 when there was a reorganization and the Department of Fisheries and Game was established, with a director in charge. A supervisor of game and game fish is appointed by the director. The department has authority to enforce all laws relating to game animals, fur-bearing animals, game birds, nongame birds and game fish.

The Game Code enacted in 1925 reauthorized the creation of county game commissions, composed of three residents of each county. These game commissioners are appointed by the supervisor of game and game fish on the recommendation of the board of county commissioners. Should such recommendation not be made within ten days after written notice requesting it, the supervisor has authority to make appointments. The County Game Commission, in turn, appoints a county game warden and employs a sufficient number of deputy county game wardens, special deputy county game wardens, and office assistants.

The county game commissions and county game wardens formed a state association, the purpose of which is the protection, propagation and distribution of game animals and game fish and the enforcement of the provisions of the act. At each annual meeting of the association there is elected from the membership of the county game commissions of said association an advisory committee of five members, who serve until the next meeting of the commission. This advisory committee sits with the supervisor of game and game fish in the apportioning of any moneys which may be appropriated from the state game fund, for the assistance of those counties which the supervisor of game and game fish and said committee shall deem to be in need of financial assistance for the proper carrying on of the work in those counties.

The game commissions enforce all laws within their respective counties. All county game commissioners, county game wardens and deputy county game wardens are ex-officio state deputy game wardens and the county and deputy county game wardens may be assigned by the supervisor of game and game fish to any place in the state where, in his judgment, such action is necessary.

A state game fund was established in the state treasury, consisting of 80 per cent of all moneys received in any county from the sale of state licenses, 10 per cent of all money received in any county from the sale of county licenses, and such sums as the legislature may appropriate. In each county treasury there was established a county game fund, consisting of 90 per cent of all moneys received in any county from the sale of county licenses and 20 per cent of all moneys received from the sale of state licenses, and all moneys received from fines and costs for violations of the game code. All payments from the fund are made by county or state warrants respectively. Game work in the state is self-supporting.

The statutory period when the several classes of game animals, fur-bearing animals and game birds may be hunted and trapped may be shortened by the county game commissioners, with the consent of the supervisor of game and fish. The full membership of any county game commission also has authority, with the consent of the supervisor, to entirely close the open season fixed by statute for the hunting of the above animals when they deem necessary, and they may also reopen a season when they consider it advisable. The supervisor of game and game fish may, when he considers "the preservation, protection and perpetuation of any game animals, fur-bearing animals and game birds" warrants such action, close to hunting and trapping any lands in the state, except those within the Quinault Indian Reservation. The county game commissions have similar authority within their own counties, upon the written approval of the supervisor. There are many areas within the state closed to hunting and trapping.

A very interesting provision of the code is that private migratory game preserves may be established by any person, firm or corporation owning or leasing lands used for hunting migratory game birds by filing on or before the first day of September a notice describing the lands within the preserve and by paying a license fee of $10. When this has been done the county game commission of the county within which such preserve lies has no authority to set aside land embraced within the boundaries as a migratory game preserve, or to prohibit the feeding of migratory birds therein.

There are many county preserves within the state but few state preserves, and these few are not on state-owned land. In 1895 the

first preserve was established on Mercer Island in Lake Washington. All of the waters of Lake Washington and the islands therein have now been included in this preserve, as well as lands in King County. The Pierce County preserve was established some years ago and was reenacted into law in 1925. This takes in the waters of a number of lakes and the islands in these lakes. The third preserve, created in 1913, lies along the Columbia and Snake rivers within the state and within one-fourth mile of the shores of these rivers throughout the counties of Klickitat, Walla Walla, Franklin, Yakima, Kittitas, Douglas, Columbia, Garfield, Benton, Grant and Whitman.

The state supervisor is in favor of more uniform seasons for hunting throughout the state. He also strongly urges the creation of state-owned refuges maintained in a wilderness state so far as possible, accessible only by trails and with automobile highways barred.

The Director of the Department of Fisheries and Game is Charles R. Maybury. S. F. Rathbun is State Supervisor of Game and Game Fish, with offices at 404 Bell Street Terminal, Seattle.

West Virginia

There are a variety of public reservations in West Virginia, including state forests, game refuges which are not state owned, parks under the State Board of Control, and 4-H camping parks. No state parks have been established, although plans have been laid for their comprehensive development.

In 1925 a State Forest, Park and Conservation Commission was created, composed of the Governor, the Commissioner of Agriculture, the Director of Agricultural Extension, the State Geologist, and the chairman of the Fish and Game Commission. This commission was directed to study and investigate the needs and opportunities for forests, parks, and game preserves, and to make a comprehensive report with recommendations to the 1927 session of the legislature.

The commission's recommendations to the 1927 legislature were very comprehensive. It suggested that the Game and Fish Commission continue to purchase state forest reserves from revenues derived from hunting and fishing licenses. It recommended that lands forfeited for the nonpayment of taxes and unredeemed, which heretofore have been sold for the benefit of the general school fund, be administered as forest, game, and fish reserves. A continuous development of the fire protection program and favorable timber land taxation was also urged. The development of state parks of outstanding scenic and natural attractiveness, to be administered by the Game and Fish Commission, was advocated, the Commission to

function as a State Park Commission, with authority to accept gifts of park lands and to purchase lands.

Since the Game and Fish Commission already functions as a forestry commission, the Forest, Parks and Conservation Commission suggested that all activities relating to game and fish, forestry and parks be placed under this Commission, and that it be called the Conservation Commission of West Virginia. It also recommended that the present policy in the administration of funds from hunting and fishing licenses be continued.

The legislature of 1927 extended the life of the Forest, Parks and Conservation Commission two years in order that its study might be continued.

The commission consisted of the following: The Governor; the State Geologist, Dr. I. C. White; the President of the Fish and Game Commission, Fred E. Cowl; the Commissioner of Agriculture, John W. Smith, and Nat T. Frame.

The Game and Fish Commissioners are C. A. Cabell, chairman, Charleston; Edward Cooper, Jr., Bramwell; and George D. Curtin, Clarkesburg. Ernest Angelo is Chief Game Protector, and P. M. Browning is Chief Forest Fire Warden. The headquarters of the commission are at Charleston.

State Parks

West Virginia has not begun the development of a state park program, although interest in such a movement is growing steadily throughout the state. The State Forest, Park and Conservation Commission, created in 1925, recommended the establishment of a system of state parks and monuments in its report to the legislature.

It was suggested that large areas of outstanding scenic and natural attractiveness be secured before commercial exploitation makes their purchase difficult. Among the areas suggested in the 1927 report were:

"Spruce-Pine Hollow" and Meadow Branch Valley, Morgan and Berkeley counties.

Cheat Lake and Coopers Rock, Monongalia County.

Cranberry Glades and surrounding mountains, Pocohontas County.

Virgin Spruce Area on Tree Forks of Gauley, Webster County.

Hawks Nest Section of New River Canyon, Fayette County.

Park Area, near White Sulphur and the intersection of Midland and Seneca Trails.

Pinnacle Rocks, Mercer County.

Bennerhasset Island, Wood County.

Seneca Rocks and the Smoke Holes were also suggested, but they have been included in the National Forest purchase area and will be added to the Monongahela National Forest.

The areas included in the state monument system are: The Mound at Moundsville, Tu-Endie-Wie Park at Pt. Pleasant, Berkeley Springs in Morgan County, Rumsey Monument at Sheperdstown, Cadell Rifle Range in Preston County, and the Morgan Monument at Bunker Hill, which are already under the administration of the State Board of Control, of which James S. Lakin is chairman. The acquisition of Ashby's Fort, Alaska; Prickett's Fort, Marion County; Philippi battlefield, Barbour County; and Drupe Mountain battlefield, Pocahontas County, and other historic spots to be selected by the State Historical Society was recommended.

The administration of state parks by the Game and Fish Commission was recommended, with authority granted to accept gifts of park lands, to purchase such lands out of any appropriation for this purpose, or from other available funds, and to administer them as units in a state park system.

A bill was introduced in the 1924 session of the legislature authorizing the county court of Kanawha County to convey to the state lands situate in Union District, to be known as the Kanawha State Park, but failed of passage. This park, under provisions of the act, would be used for state 4-H fairs and expositions, camp sites, recreation centers, community work, and other educational purposes, title to revert to the county court of Kanawha if the land was used for other purposes. The park would have been placed under the administration of the Board of Control, had it been favorably acted upon by the legislature.

In 1925 leglislation was passed authorizinz the creation of county and district park systems. An extensive 4-H camp system has been developed in West Virginia during the past ten years. There are two state camps—Jackson's Mill near Weston, the boyhood home of Stonewall Jackson, consisting of 96 acres, and Pinecrest near Beckley, consisting of 200 acres or more. Sixteen counties have permanent county camp sites averaging slightly more than 10 acres per camp. The state 4-H camps are owned by the Board of Control and administered by the West Virginia Agricultural Extension Service. The county camps are owned by the county or incorporated 4-H group and are conducted by the county agents in cooperation with the extension division.

Jackson's Mill, which is under the direction of William H. Kendrick, is the best developed camp of the state. A permanent administration building, mess hall, assembly hall and eight county

cottages have been constructed at a cost of approximately $200,000. A large swimming pool is available. There are many group camps, used by city people, religious workers, farm women and men. Food and lodging at these camps cost approximately $1 per day.

Game and Forests

The protection of the wild life and forests of West Virginia are under the same administration—the Game and Fish Commission. Game work began in 1897 when the office of the Game and Fish Warden was established, to be reorganized in 1909. The first forestry organization in the state was created in 1908 for forest fire control. In 1921, the Game and Fish Commission was created and given charge of game and fish propagation, as well as forest protection and all other conservation work. The commission consists of three nonsalaried members appointed by the Governor. Game work is under the direction of a Chief Game Protector, and the Chief Forest Fire Warden has charge of forestry work.

Expenses of the Game and Fish Commission are met from funds from hunting and fishing licenses, Federal allotment and assessments on property owners for forest fire prevention. One-fourth of these receipts are devoted to forest fire control to obtain financial cooperation from the Federal Government. These funds have also been used for the acquisition of state forests, amounting to 16,000 acres, and a game farm of 327 acres for the purchase of deer and other game for restocking, for educational work and for other activities of the commission. Under this system the sportsman pays his fair share for the protection and propagation of wild life, and for the prevention of forest fires.

Forests

With a land area of 15,374,080 acres, West Virginia has over 9,000,000 acres of forest land remaining. Of this, only approximately 250,000 acres are in virgin timber.

West Virginia has made rapid strides in the protection of her forests although laws relating to them have been in force only a few years. With its present personnel and equipment, and the cooperation its extends to and receives from landowners, the commission is able to protect about 5,000,000 acres.

The most important phase of the commission's forestry work is the protection of the forests from fire. The Department of Forest Protection is charged with this duty. A fire plan has been developed under which the state is divided into four districts, with a district ranger in charge of each. These districts are then divided into what

are called tower areas—that is, into sections under practical observation from each tower. Each district ranger has from five to twelve tower areas under his control. Usually the observer at the tower is placed in direct charge of the tower area under the supervision of the district ranger. Each tower area is then divided into from two to five divisions, with a regularly employed ranger in charge of each. Where the divisions are quite large, an emergency ranger is appointed to assist the rangers in patroling the district.

As far back as 1914 a number of property owners established a common fund for fire protection. The Southern West Virginia Forest Fire Protective Association was organized in 1916, when timberland owners met to solve the forest fire problem. They pledged 97,500 acres of timberland for united protection from fire, at a maximum fee of 1 cent per acre per year. This nucleus has now increased to 1,164,000 acres. These funds are expended by the commission and are used for the salaries of observers, patrolmen and rangers. The commission expended an equal amount of state and Government funds and carried all the expenses of the supervisory force and of construction. The association may at any time appropriate surplus funds for construction, to be done under the supervision of the commission. This cooperation, together with receipts from hunting and fishing which are allowed by law for use in forest fire work, and funds received from the Federal Government under the Clarke-McNary Act, have enabled the commission to make rapid progress in the protection of the state's forest resources.

A law passed in 1925 requires that every owner of forest area in the state provide protection for his land at a cost of not to exceed one cent per acre per year. This method creates a basis of cooperation for adequate fire protection. The law was fostered by the Wild Life League of West Virginia and the United States Forest Service. When the owner resides within 1½ miles of his tract of 360 acres or less, such residence is deemed adequate protection for the tract. However, it does not relieve him of responsibility for the control and suppression of fires. Any land which has sufficient timber, standing or down, to constitute, in the judgment of the commission, a fire menace to its own or adjacent land is listed as timber land.

The authorities of West Virginia believe one of the best means of securing cooperation in the protection of forests is through education. An agreement to employ an extension forester was made with the State University. It is the duty of this forester to give fire prevention lectures, to interview people in the field, to arrange fire prevention exhibits, and to write articles of both local and general interest. An excellent assortment of slides was made up for such lectures and

extensive programs have been arranged, including all sections of the state. In addition to the lectures given by the extension forester, the chief game protector has addressed many leagues, clubs and associations in all sections of the state. Fire prevention posters have been printed and placed along the main highways at camp sites, in stores, postoffices and other gathering places. Through this work the people of the state are enlisted in the effort to preserve West Virginia's forests.

Two state forests have been purchased from a portion of the proceeds of hunting and fishing licenses—the Watoga tract, containing 4,546 acres, and the Seneca State Forest, containing 10,847 acres, both in Pocahontas County, and purchased at a cost of $36,879. These forests have no recreational development. They are used as game preserves and are stocked with deer, grouse, turkey and squirrels. The commission plans to purchase additional forest areas.

The total state appropriation for forestry work is $42,500. Under the Clarke-McNary Act, West Virginia cooperates with the Federal Government and is allotted $20,785 for forest fire protection and $1,000 for the distribution of forest planting stock. The state cooperates, through the University Extension Department, with the Federal Government in farm forestry extension work.

Game

In the seven short years since the Game and Fish Commission was organized rapid progress has been made in game protection and propagation. Practically all kinds of native game are on the increase. Deer are common in several localities. Quail have never been so abundant, and turkeys and grouse are plentiful. The natural propagation of wild turkeys, ruffed grouse, and small game animals has been very satisfactory during the past few years.

One of the most important phases of the commission's work is its educational program. It endeavors to reach the public and arouse an interest in the conservation of wild life. Representatives of the commission meet and discuss outdoor problems with groups of sportsmen, organizations and schools in various parts of the state. They contribute articles to the leading magazines and newspapers, and distribute reports, game laws, lists of streams, posters and other educational material. The commission has a department in *West Virginian Wild Life,* a publication of the Wild Life League in which it publishes news of its activities. This publication has been placed in 6,500 of the rural schools of the state.

A game farm of 327 acres located at French Creek, Upshur County, was purchased in 1924. The propagation of game birds

was begun on this farm in 1925. Among the domestic and wild game on the farm are white-tailed deer, elk, raccoons, gray squirrels, ring-necked pheasants, silver pheasants, quail, Hungarian partridge, wild turkey, bear and Rhode Island hens. Small game which is propagated naturally is rapidly increasing. Thousands of pheasants' eggs and pheasants were distributed during 1927 and were sent free of charge to persons desiring them. Many additions were made to the live stock during 1927, through the purchase of four bear cubs, and gifts of squirrels, raccoons, opossums and other small game animals and birds. The herd of deer on the farm has increased rapidly.

A deer park of 162 acres is located on the east side of the state highway near the game farm. It contains seven deer which are especially fine specimens. Approximately 100 acres of the game refuge at West Union, in Doddridge County, has been fenced off as a deer park. Another park of nearly the same size was established on the New Creek Refuge in Mineral County. Twenty deer were purchased during 1927 and distributed among these deer parks.

West Virginia has no state-owned game refuges other than the state forests which are devoted to such use. The following refuges have been established on privately owned land.

Lakin State Refuge, Preston County, 4,000 acres.
Tibbs Run, Monongalia County, 100 acres.
Jackson's Mill Refuge, Lewis County, 2,000 acres.
French Creek Refuge, Lewis County, 1,000 acres.
Beech Run Refuge, Randolph County, 2,000 acres.
Petersburg Refuge, Hardy County, 2,000 acres.
Paint Creek Refuge, Fayette County, 10,000 acres.
Cooper's Rock Refuge, Monongalia County, 4,000 acres.
Saltwell Refuge, Harrison County, 3,717 acres.
Doddridge Refuge, Doddridge County, 3,164 acres.
Otter Creek Refuge, Randolph County, 18,000 acres.
New Creek Refuge, Mineral County, 3,000 acres.
Brocks Gap Refuge, Pendleton County, 4,000 acres.
Seneca State Forest Refuge, Pocahontas County, 10,847 acres.
Ansted Refuge, Fayette County, 20,000 acres.
Wyoming Refuge, Wyoming County, 2,500 acres.

Among the game on refuge are deer, wild turkeys, ruffed grouse, squirrels, quail, rabbits, ring-necked pheasants, and other small game. Black bears are found in parts of the Otter Creek Refuge, which are overgrown with rhododendron and other dense cover.

Wisconsin

Among the states which early recognized the need for the conservation of her scenic places and forests is Wisconsin. As far back as 1867 the cutting of the heavy forest cover for lumbering and agriculture aroused alarm and a legislative committee urged more careful methods, although no legal method of preventing such cutting was provided. By the year 1900 the great bulk of the soft wood supplies of the state had been logged.

Interest in the preservation of the areas of scenic beauty in the state developed first in 1890, when a state park of approximately 50,000 acres in Lincoln County was created by the legislature. Unfortunately in 1897 through legislative action this area was sold and the timber cut by lumber companies. By a curious coincidence, in the same year another legislative committee urged the creation of a forestry bureau and a state forest, although such action was not taken until 1903. This law, which was revised in 1905, established a State Board of Forestry. In the meantime, in 1901, the first permanent acquisition of land was made for state park purposes, when the Interstate Park was started at St. Croix Falls. Similar movements for the acquisition of parks led to the establishment of a State Park Board in 1907.

For ten years from 1905 the Board of Forestry was very active. It acquired over 150,000 acres in Vilas and adjoining counties, but the fact that these lands were not subject to taxation developed opposition to further acquisition. A suit brought in the Supreme Court, with the resulting decision that the forestry plan was unconstitutional, brought this work to a stop. Lands already acquired were retained.

In 1915 the State Board of Forestry and the State Park Board were placed together with a number of other state activities, among which was the Division of Fish and Game under the charge of a conservation commission. Until the legislative session of 1923 the commission was composed of three members, but during that year a consolidation was made and the commission placed under one commissioner, with assistants in charge of state parks and forests, and fish and game, and other state activities. This plan continued in force until 1927, when the duties conferred upon the Commissioner of Conservation were transferred to a Conservation Commission created by the legislature of that year.

The purpose of this commission is to "Provide an adequate and flexible system for the protection, development and use of forests, fish and game, lakes, streams, plant life, flowers and other outdoor

resources" in the state. It consists of six members, three from the territory north of and three from the territory south of the town of Stevens Point. The commissioners are appointed by the Governor for a term of six years, serve without salary, but are allowed actual and necessary traveling expenses and subsistence while absent from their homes on business of the commission. The administrative head is a conservation director, appointed by the commission.

The Conservation Commission

The members of the commission recently created are: William Mauthe, chairman, Fond du Lac; E. M. Dahlberg, secretary, Ladysmith; Eugene Wengert, Milwaukee; O. C. Lemke, Wausau; A. W. Icks, Green Bay, and F. L. Gilbert, Madison. The conservation director is L. B. Nagler; the assistant director, Matt Patterson, with C. L. Harrington as superintendent of forests and parks, and B. O. Webster as superintendent of fisheries. The office of the commission is in the State Capitol at Madison.

State Parks

The state parks of Wisconsin are all areas of great natural beauty, offering to their users the best in fishing, hunting, camping and recreational opportunities. They contain forests, lakes, creeks and rivers, cliffs, gorges and wooded bluffs, unique rock formations and historic places.

It has been the policy of the conservation commission that only the most outstanding, the most unique and historic areas should be included in the park system, and that these should be selected with the utmost care. It is believed that tracts of secondary importance should find their uses through membership in a system of county and city parks, supplementing the state-owned system. When tracts of the first classification are acquired it is the policy to develop them to serve not only local needs but the needs of the cross-country tourist. The patrons of the eleven parks number hundreds of thousands annually.

The commission not only can acquire parks through purchase and gift, but has the right of condemnation whenever lands are required for park purposes and agreement with the owners can not be reached. No land can be either purchased or condemned until after the legislature has appropriated or the commission has available the necessary money for such use. Should the commission ascertain that land within the limits of a proposed state park have a value incommensurate with their value for the purpose of the park it may enter into a written agreement with the owner for such control or super-

vision over the land as it deems necessary. The attorney general acts as counsel and attorney for the commission.

An interesting provision of the conservation law is the homestead clause, which provides that the commission may enter into a contract with the owner of land it acquires for park purposes whereby the owner may be permitted, during his natural life, to remain on the portion of such land, not to exceed one acre in extent, upon which the homestead buildings are located.

The state parks are well developed for camping, a fee of 50 cents a week, $5 per season, being charged. A deposit of $5 is required of season campers, which is refunded if the camp site is left clean. Tents and cots may be rented from a concessionaire, and portable house sites may be leased for $10 per year. Camp sites must be occupied within three days after leasing. For the convenience of the visitor, in several of the parks the privilege of renting boats, carrying passengers across the lake, serving meals, etc., has been leased to responsible parties under restrictions laid down by the commission.

All receipts from concessions, camping, and other revenues go into a conservation fund for park purposes. This fund is used both for purchase and administration. The revenue from the parks has been of steady growth.

Important Projects Fail

There were three important park measures before the last legislature, which, if passed, would have materially strengthened Wisconsin's system. They were bills for the creation of the Northern Lakes Park, the Seven Pines Park and the Kettle Moraine Park.

The proposed Northern Lakes Park comprises 7,800 acres, lying between the north and south forks of the Flambeau River in Sawyer County. It is one of the most attractive combinations of forested lakes and river frontage to be found in the state—practically all virgin timber. Bills for its establishment have been before several sessions of the legislature.

The Kettle Moraine Park, with a proposed area of from 20,000 to 30,000 acres, would serve a population of over one million in the southeastern counties alone. It includes rolling wooded country and several beautiful lakes. The creation of this park is supported by public-spirited officials and civic workers in nine counties, organized into the Southeastern Wisconsin Inter-County State Park Association, with Charles C. Jacobus, chairman of the Milwaukee County Highway Commission, as president; and E. A. Howard, supervising engineer of the Milwaukee County Regional Planning Department,

as secretary. Vice-presidents represent counties outside Milwaukee, including Sheboygan, Fond du Lac, Ozaukee, Washington, Kenosha, Racine, Waukesha, and Dodge.

The cost of these three projects would have amounted to close to one million dollars. It was proposed by the finance committee of the 1927 legislature to provide for their purchase by the levy of a surtax. Some of the members of the legislature who were supporting the Kettle Moraine Park bill were opposed to the surtax features, believing it advisable to have a direct appropriation made for the purchase of the park. In the closing days of the legislature the Kettle Moraine Park bill was lost in a fight over the surtax. Appropriations were passed with the surtax features for the Northern Lakes and the Seven Pines Parks, but the bills were later vetoed by the Governor.

State Forests

Wisconsin has a large acreage in forest reserves, created in the ten years following 1905. When the forestry act was declared unconstitutional a part of the lands already acquired were retained. They now total 175,000 acres and are located mainly in Vilas and adjoining counties. They are primarily school lands, although here and there are isolated forties of land granted to the state by the Government specifically for forestry and recreational purposes.

There are also several hundred islands in the northern lakes granted to the state by the Government in 1912 for forestry purposes. They are ideally situated for recreational use.

The forestry lands need to be blocked up and balanced to function as originally intended. Before 1924 it was impossible to classify these lands as state forests because of constitutional objections. With the approval of the constitutional amendment on forestry by a majority of 162,797 votes it became lawful to describe these lands as state forests. Under the new conservation law, passed by the 1927 legislature, the conservation commission has authority to acquire by purchase, condemnation, lease or agreement, and to receive gifts of land for "state forests for the purpose of growing timber, demonstrating forestry methods, protecting watersheds or providing public recreation."

Managed jointly by the conservation commission and the land commissioner these lands afford excellent opportunities for recreation, such as camping, bathing, fishing and boating. They include scores of miles of desirable lake and river frontage. Permits are granted for the erection of tents or temporary shelters for camping without charge.

The acreage of the reserves by counties is as follows: Ashland, 7,892; Bayfield, 2,095; Burnett, 4,654; Douglas, 7,163; Forest, 37,748; Florence, 3,578; Iron, 30,121; Mainette, 5,507; Oneida, 71,230; Polk, 1,871; Price, 19,776; Rusk, 2,215; Sawyer, 13,479; Taylor, 902; Vilas, 128,139, and Washburn, 3,630.

Wisconsin cooperates with the Federal Government under the Clarke-McNary Act and will receive during 1928, $31,896 for fire protection, $2,000 for the distribution of forest planting stock, and $1,980 for farm forestry extension.

It is the aim of the forestry officials to materially strengthen forest work and to extend the area of state-owned forests during the next few years. A committee created by the last legislature will undoubtedly greatly aid in bringing about a realization of this aim, since it is to investigate all phases of the forestry situation in the state and formulate a comprehensive policy.

Game

The first state fish and game warden was appointed in 1891, jurisdiction over this work passing to the conservation commissioner when that office was created in 1915, and, in turn, to the conservation commission established in 1927.

The new conservation laws contain many interesting provisions relating to game. Owners of land not less than 160 acres in extent may, upon application to the commission, have such lands declared wild life refuges if the commission believes such action is warranted. The commission then has authority to place wild life of any species on these refuges.

State wild life refuges were created on all lands within the limits of state parks; on lands in township 38 north, located in Forest County; on other lands described in the law by section, township, and range; and on state-owned land in certain sections of township 34. The commission is authorized to administer and improve these areas.

Ten acres of land in Green Lake County, together with approximately 34 acres in Oakwood Beach, including a portion of Spring Lake, have been set aside as the Black Hawk Refuge. Authority was granted the commission to acquire by purchase or condemnation land known as Horicon Marsh for the establishment of a wild life refuge, game preserve and fur farm. All income from the preserve is to be paid into the conservation fund in the treasury. In Oneida County certain sections have been set aside as the American Legion Forest Preserve and Game Refuge, under the control and jurisdiction of the conservation commission. The Wisconsin Department

of the American Legion will be asked to assume the care, development and protection of the preserve and refuge. No hunting or trapping is permitted at any time within any of these refuges.

Wyoming

A large portion of the area of Wyoming is covered by national parks and national forests which offer immense recreational opportunities. Probably for this reason a state park board has not been created, nor has a state park system been developed, though there are two state-owned reserves. Effort for the protection of game began as early as 1895, and is making rapid progress. The state has no forestry laws and practically all the public forest lands are under the control and jurisdiction of the United States Forest Service. The state school lands, which in many other states have been utilized for some form of recreation or for forestry development, have been exchanged with the United States Forest Service for other land, and the areas received have been sold to individuals.

State Parks

Wyoming has two state reserves which are similar in development to state parks. The Big Horn Hot Springs State Reserve, adjacent to Thermopolis, was originally a portion of the Shoshone Indian Reservation. In 1897 Congress ceded to the state one square mile in the northeastern portion of the reservation, with the stipulation that the waters should always be open to the public. There are four large and hundreds of smaller mineral hot springs. One-fourth of the water of one of the principal springs was retained for use in a modern bath house erected and maintained by the state. Camp grounds are available; hotels, apartments, and other accommodations have been provided. All money derived from any use of the state lands is paid into the state treasury where it is deposited in a special fund known as the Hot Springs Sanitary Fund. This fund is at all times available for use in administering the reserve, but as yet does not pay the expenses, and the balance is made up by legislative appropriation.

Another reservation, the Saratoga Hot Springs State Reserve in Carbon County, was purchased by the state in 1921. This reserve is included in an area called Southeastern Wyoming, the residents of which are actively working for its extensive development. The most notable feature of the reserve is a group of natural mineral hot springs famous for their curative powers. It has not been extensively developed.

These reserves are under the administration of the State Board of Charities and Reform, of which Governor Frank C. Emerson is president. The other members are Mrs. Katherine A. Morton, A. M. Clark, Vincent Carter, W. H. Edelman. Amy G. Abbot is secretary. Its headquarters are in Cheyenne.

Game

The formulation of definite plans for the preservation of game began in 1895, when the jurisdiction of the fish commissioner was extended to cover this most important activity. The office of state game warden was established in 1899, followed in 1911 by the establishment of the Board of Game and Fish Commissioners. In 1925 the game laws were again amended, and a State Game and Fish Commission established.

This commission has a board of six members appointed by the Governor. Not more than three members may belong to the same political party. They serve without compensation, but are reimbursed for all necessary traveling expenses.

The executive officer of the commission is the state game and fish commissioner, appointed by the board with the approval of the Governor. Among his most important duties are the protection of game animals, birds, and fish, and the enforcement of the laws relating thereto. It is within the jurisdiction of the board to declare a closed season on any game animals or game birds in any part of the state when such action is required for their protection.

The state game and fish commissioner is authorized to appoint a chief assistant game and fish commissioner, twenty assistant state game and fish commissioners, and deputy game and fish commissioners. It is the duty of these officers to enforce the game laws of the state.

The work of the board is carried on from the proceeds of a fish and game fund. An appropriation of $100,000 was made for deposit in the fund. All moneys received by the commission from any source are placed to the credit of this fund. When the amount of money received, together with the appropriation by the legislature, exceeds $200,000, the excess is turned into the general fund of the state.

The following game preserves have been created:

Rock Creek State Game Preserve, in Big Horn Forest Reserve; Shoshone State Game Preserve, Park County; Sunlight State Game Preserve, Park County; Hoodoo State Game Preserve, Park County, 618,680 acres.

Tenslepp Game Preserve, Big Horn County, 3,560 acres.

Popo Agie State Game Preserve, within the Washakie National Forest, Fremont and Sublette counties, 4,480 acres.

Kendall State Game Preserve, Sweetwater County, 128,000 acres.

Careyhurst Game Preserve, Converse County, 192,000 acres.

Split Rock Special Game Animal Preserve, Fremont County, 1,600,000 acres.

Days River State Game Preserve, within Wyoming National Forest, Teton and Lincoln counties, number of acres not known.

Wind River, Elk protected territory, Fremont County, 605,000 acres.

Powder River State Game Preserve, Johnson County, 7,640 acres.

Campbell County State Game Preserve in Campbell County, 3,840 acres.

Casper Mountain State Game Preserve, Matrona County, 1,920 acres.

Bridger State Game Preserve within Bridger National Forest, Sublette County.

Haystack State Game Preserve, Platte and Goshen counties, 2,560 acres.

Teton State Game Preserve, Teton County, 512,000 acres.

Laramie Peak Game Preserve, Albany and Platte counties, 4,680 acres.

Grosventre Game Preserve, Teton County, 3,600 acres.

Flat Creek Game Preserve of 3,570 acres.

Black Rock Game Preserve in Teton and Washakie National Forests.

The hunting, killing, trapping or capture of any animal or birds within any of the state game preserves or national forests without a permit from the State Game and Fish Commissioner is prohibited. The commissioner may grant such a permit at his discretion, but it is valid for only one year. In this respect the preserves differ materially from those of a majority of the states where hunting is entirely prohibited. The Big Horn State Game Preserve is entirely closed to hunting.

Game is plentiful in Wyoming. The Southern Elk herd alone numbers approximately 20,000. The state will be stocked with Chinese ring-neck pheasants and Hungarian partridges, a number of which will be purchased and released each year. The sage hen is still plentiful in many sections of Wyoming. The commissioner recommends the establishment of bird refuges for their protection, stating that bird refuges are just as essential as game refuges.

There are over 3,000,000 acres in state game preserves, but no areas have been set aside for the protection of the native game birds.

The members of the board are: John T. Scott, Casper; James S. Simpson, Jackson; A. J. Martin, Cody; Harry A. Churchill, Sheridan; Dr. Robert A. Hocker, Kemmerer; Elmer Cook, Cheyenne, and Bruce Nowlin, Cheyenne, secretary.

Bruce Nowlin is State Game and Fish Commissioner. His headquarters are in Cheyenne.

Tables Showing

State Parks, Forests and

Game Preserves

ALABAMA

STATE MONUMENTS

Department of Archives & History

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Horseshoe Bend.....	Historical...	12 mi. N. Dadeville...	1907	15	Site of victory 1814 Andrew Jackson over Upper Creek Indians.	Gift.
Fort Toulouse.....	Historical...	Junction Coosa & Tallapoosa Rivers.	1911	5.26	Site of Indian town of Taskigi, post of French 1714, British 1763, Americans 1814.	Purchase.
Montpelier.....	Memorial....	Baldwin County.....	1923	.....	Burial place David Tate. Made military post by Andrew Jackson.	Gift.
William Weatherford*...	Memorial...	½ mi. S. Little River near Alabama River.	1923	.25	Burial place of William Weatherford.....	Gift.
Ft. Confederation.....	Historical...	W. Fork, Sumter County.	1909	1	Site of French Fort Tombechee, 1745.....	Gift.
Manack Homestead†...	Memorial....	16 mi. S. Montgomery on Pinchona Creek.	.....	.....	Manack, half-breed, had son graduate West Point, 1821, killed in Florida War, 1837.	.....

*Maintained by Baldwin County Historical Society.
†Not owned by but under supervision of state.

STATE FORESTS

State Commission of Forestry

Name	Date created	Area, acres	Special characteristics	Method of acquisition
Sumter	1926	40	Level agricultural land	Gift of Allison Lumber Co., Inc.
Panther Creek	1926	40	Uneven forest	Gift of Jackson Lumber Co.
Gaston	1926	20	Uneven forest	Gift of Allison Lumber Co., Inc.
Randolph	1927	10	Uneven forest	Gift of Kaul Land & Lumber Co.

ARKANSAS

STATE PARKS

State Park Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Petit Jean	Physiographic & Scientific.	Near Morrilton, 70 mi. N. W. Little Rock.	1923–26	1,128	Road, Trails, Camp Sites, Summer camp Y. M. C. A.	Picturesque gorge two miles long, 200 to 400 feet deep, branching gullies and high waterfall. Interesting caves, rock formations, and canyons.	Gift.

CALIFORNIA

State Parks

No. 7. State Park Commission, Dept. of Natural Resources

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Burney Falls...	Physiographic.....	50 mi. E. Redding, Shasta County.	1920	335	Camping facilities...	Lost River breaks from underground channel and plunges nearly 200 feet below, the water emerging in sheets from different stratas of lava.	Gift & exchange of lands.
California State Redwood.*	Forested.....	65 mi. S. Santa Cruz Co.	1901–1918	9,691	Trails, Hotel & Restaurant. Cabin camps and store under concession. Free camp sites.	Virgin stand of California Redwoods. Representative growth all forest cover in Coast region. Beautiful rugged scenery.	$448,550.
General Bidwell.	Forested.....	Near Chico, Butte County.	1908	100	Dance pavilion & bathing resort under concession.	Wooded tract on Sacramento River.	Gift.
Humboldt State Redwood.*	Forested.....	Units along Redwood Highway from Richardson Grove 1 mi. N. Mendocino, Humboldt County line to Sage Grove near Weott in Humboldt Co.	1921–27	2,830	Camp sites 50 cents per night; also free. Rustic cottages and tents rented in Richardson Grove. Restaurant under concession. Store. Fishing and Swimming.	Finest Redwoods (Sequoia sempervirens) of California. Area of rare scenic beauty including Franklin K. Lane, Richardson, Sage, Stephens, Bolling, Hickey, Hammond, Kent, Mather, Gould, and Perrott Groves, Felton.	Gift & $300,000. $25,000.
Henry S. Graves Grove.	Memorial & Forested.	10 mi. S. Crescent City, Del Norte County.	1925	368	Trails to ocean. Camping prohibited.	Magnificent Redwood Grove, on Pacific Coast, affording many striking ocean vistas.	Gift.
Mt. Diablo.....	Physiographic.....	12 mi. E. Oakland, Contra Costa County.	1923	640	Undeveloped. Used as State game refuge.	On top Mt. Diablo, 4,000 feet high, with commanding view, embracing valleys, hills, mountains, bays, cities and the Pacific.	State-owned land.
Russ Grove....	Memorial.....	30 mi. S. Crescent City.	1926	166	Not developed.....	Magnificent stand Redwoods.....	Gift.

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Camp Ground Lake Tahoe.	Recreational..	Tahoe City, Placer County.	.....	.....	.....	
First Theater.....	Historical....	Monterey, Monterey County.	1901	.50	First Theater in California. At present contains many old relics loaned.	Gift.
Fort Ross.....	Historical....	Fort Ross, Sonoma County.	1906	3.01	Old Russian Fort.....	Gift.
Junipero Serra.....	Historical....	Monterey, Monterey County.	1902	.....	Spot where Father Serra landed, also statue in honor of The Founder of The California Missions (Father Serra).	Gift.
Marshall's Monument*....	Historical....	Coloma, Eldorado County.	1888	28	Monument in honor of discoverer of gold in California.	$400.
Mission San Francisco de Solano.	Historical....	Sonoma, Sonoma County.	1905	.....	Most northerly of the California missions...	Purchased Landmark Fund 1903.
Pio Pico Mansion.....	Historical....	Whittier, Los Angeles County.	1914	158 Ft. ×97 Ft.	Preserved as typical adobe Spanish residence.	
San Pasqual†.....	Historical....	San Diego County near Escondido.	1918	1	Monument erected to commemorate battle San Pasquel Dec. 6 and 7, 1846.	Gift Wm. G. Henshaw and Ed. Fletcher.

*Caretaker.
†San Pasqual Monument Commission.

CONNECTICUT

State Parks

Connecticut State Park & Forest Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Black Rock.....	Physiographic....	Litchfield County...	1926	433	Will be intensively developed.	In process of acquisition. Mountain woodland with streams.	Gift.
Black Pond.....	Forested.....	Middlefield, Middlesex County.	1919	100	Undeveloped, not suited for camping.	Preserving forestation along highway on north and steep stalus slopes of Beseck Mountains on the east.	$1,500.
Bolton Notch...	Physiographic....	Bolton, Middlesex County.	1918	70	Undeveloped.....	Cut deep in solid rock, resulting surface rough hewn.	$2,000.
Buttonball Brook.	Physiographic....	Chaplin, Windham County.	1919	135	Undeveloped.....	Lies close to traffic yet encloses small basins offering great seclusion.	$750.
Campbell Falls..	Forested & Physiographic.	Norfolk, Litchfield County.	1923	102	Undeveloped.....	Wild plunge of falling waters constituting falls lies in Mass., donated to state and under Dept. Conservation. In Conn. Beautiful view. Contains fine hemlock and pine.	Gift 2 acres & 100 acres at $450.
Dart Island.....	Physiographic....	Middletown, Middlesex County.	1918	2	Of use only to river parties.	Wooded sand bar opposite Maromas Station.	Gift.
Devil's Hopyard.*	Physiographic and forested.	East Haddam, Middlesex County.	1919	860	Road. Trails. Fishing. Excellent camping.	Wildest ravine in S. E. Connecticut. Five waterfalls. Splendid forest hemlock and hardwoods.	$25,960.
Fort Shantok*...	Historical.....	Montville, New London County.	1925	130	Trails. Will develop. Camping.	Site of Mohegan Village and stronghold of Uncas. Contains ancient Mohegan burying ground.	$16,100.

*Resident custodian.

Great Hill.....	Physiographic....	Portland, Middlesex County.	1917	18	Excellent trail to summit.	Commanding position overlooking lower Connecticut.	$960.
Hammonasset Beach.*	Physiographic....	Madison, New Haven County.	1919	898	Excellent beach, fine pavilions with 3,000 lockers. Boardwalk. Clam shed for lunches. Season and week-end camp sites available.	Beach two miles long. Partially developed for use.	$186,015.
Haystack.....	Physiographic....	Norfolk, Litchfield County.	1917	1	Undeveloped.....	Summit 1,680 feet above sea level, highest point owned by state.	$1,200.
Humaston Brook.	Forested.....	Litchfield.....	1920	7	Picnicking.....	Small stand old hemlock along beautiful brook with waterfalls.	Gift.
Hurd Park*.....	Forested.....	East Hampton, Middlesex County.	1915	545	Boat landing. Good camp sites.	Hurd Brook, in northern section, has attractive hemlock gorge.	$15,700.
Ivy Mountain...	Physiographic....	Goshen, Litchfield County.	1917	50	Undeveloped.....	Outlook Point, needs road and tower..	$1,500.
Kent Falls*.....	Physiographic....	Kent, Litchfield County.	1919	219	Camp sites. Bathing facilities will be provided.	Very scenic area with beautiful falls and hemlock forest.	Gift and 19 acres @ $1,250.
Lake Waramaug.	Forested.....	Kent, Litchfield County.	1920	75	Camp sites.....	Favorite picnic grounds.....	$10,000.
Macedonia Brook.*	Physiographic....	Kent, Litchfield County.	1918	1,742	Excellent camp sites. Trout fishing.	Largest park in state. Entire basin going back to natural conditions.	Gift & 96 acres @ $2,892.
Mashamoquet Brook.*	Forested.....	Pomfret, Windham County.	1918	46	Short time camp and picnicking use.	Finest stand of big hemlocks in state.	Gift & 34 acres @ $5,000.

*Resident custodian.

STATE PARKS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Minnie Island....	Physiographic & Forested.	Salem, New London County.	1925	1	Used as landing place by boating parties.	Island, high and well wooded in S. E. part of Gardner Lake.	Purchase.
Mohawk Mountain.	Historical.....	Cornwall, Litchfield County.	1917–22	156	Large group camp of Y. M. C. A.	Bird and game sanctuary. Used as a place for beacon fires by Connecticut Indians.	Gift & 5 acres @ $250.
Mt. Carmel*....	Physiographic & Scientific.	Hamden, New Haven County.	1924	478	Old trails and wood roads.	Mountain of trap rock.....	Gift & 53 acres @ $3,525.
Mt. Tom.....	Physiographic...	Litchfield, Litchfield County.	1915	219	Large camp maintained by Waterbury Council B. S. A. Bathing. Camping.	Fine outlook from stone tower, and lake frontage.	Gift and 39 acres @ $6,900.
Nathaniel Lyon Memorial.	Historical.....	Eastford, Windham County.	1920	216	Many good camping sites.	Memorial to Brig. Gen. Nathaniel Lyon killed at Wilson's Creek, August 10, 1861. Forest cover.	$5,100.
Quinebaug Pines..	Forested.....	Putnam, Windham County.	1923	36	None.....	Fine stand white pines over a hundred years old, approach 3 feet in diameter, excellent reproduction of all ages.	$6,100.
Saptree Run.....	Forested.....	Pomfret, Windham County.	1919	24	None.....	Old sugar-maples adjoining Mashamoquet Brook.	Gift & 4 acres @ $1,400.
Selden Neck.....	Physiographic & Forested.	Lyme, New London County.	1917	122*	No development yet attempted.	Largest island in state, includes high cliffs and old hemlocks. More land needed.	$6,991.

Squantz Pond....	Physiographic...	New Fairfield, Fairfield County.	1926	138	None. In process of acquisition.	Lake front.....	$8,835.
Sherwood Island..	Physiographic...	Westport, Fairfield County.	1914	48	None.....	Shore front.....	$12,959.
Tri-mountain.....	Physiographic...	Durham, Middlesex County.	1926	6	None.....	Three notches in trap rock range south of Reed's Gap.	Gift.
West Peak.....	Physiographic...	Meridian, New Haven County.	1918	181	Undeveloped.....	Highest trap rock in Connecticut, rising 1,000 feet above sea level.	$19,425.
Wharton Brook*..	Physiographic...	Wallingford, New Haven County.	1919	47	Camp sites. Supplies except food available.	A wayside park developed for use of traveling public. Many winding brooks, fine old shade trees.	$10,775.
Wolf Den.....	Historical.....	Pomfret, Windham County.	1925	363	None.....	The site of Israel Putnam's famous exploit with the wolf.	$6,402.
Wooster Mountain.	Historical.....	Danbury, Fairfield County.	1920	100	None.....	It was over this mountain that Gen. David Wooster pursued the British troops in 1777. Overlooks his last battlefield in Ridgefield.	$5,000.
Above All.....	Forested.....	Warren, Litchfield County.	1927	3	None.....	Site for tower, forested.....	Gift.
Housatonic Meadows.	Physiographic...	Sharon, Litchfield County.	1927	40	None.....	Wayside with river front. Acquisition begun.	Purchase.
Mt. Bushnell.....	Physiographic...	Washington, Litchfield County.	1916	84	None.....	Commands fine view of Lake Waramaug.	Purchase.

*Resident custodian.

STATE FORESTS†

State Park & Forest Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Cockaponset.....	Forested&Physiographic.	Chester.....	1925	6,800	One place developed for camping. Conn. Agricultural College maintains summer camp in forestry.	Located in wild section of State. Largely covered thrifty second growth hardwood forest.	Purchase.
Housatonic.....	Physiographic & Forested.	Sharon.....	1912–16	6,471	Fishing. Camping.	Commands splendid view Taconic Range, including Bear Mountain. Highest peak in state.	Purchase.
Meshomasic*.....	Forested.....	Portland.....	1903–04	3,371	Fishing. Camping. Public camp ground developed.	First State forest in New England. Area has been covered with productive forest.	Purchase.
Mohawk*.....	Historical & Forested.	Cornwall.....	1921–22	2,712	Fishing. Camping. Public camp ground developed.	Mountain used as place for beacon fires to warn Connecticut Indians of approach of Mohawks of N. Y. State, who levied tribute upon them. Game sanctuary.	Gift.
Natchaug.....	Forested.....	Eastford.....	1917–20	4,354	Fishing. Camping.	Several swamps of white cedar and red maple. Area mostly covered second growth oak, hickory, ash and black birch.	Purchase.
Naugatuck.....	Forested.....	Watertown.....	1926	2,200	Fishing. Camping.	Picturesque tract. Cutover land and most of area will be replanted with pine.	Gift & Purchase.

†Total cost $186,475.
*Resident superintendent.

Nehantic	Forested	East Lyme	1926	380		Timber cut but covered with young growth.	Purchase.
Nepaug	Forested&Physiographic.	Burlington	1926	998		Primary purpose to protect brooks needed for State Fish Hatchery in Burlington. Adapted to raising pine.	Purchase.
Nipmuck	Forested	Union	1905–07	2,223	Fishing. Camping.	Contains some of oldest forest plantations in State.	Purchase.
Peoples	Forested & Historical.	Barkhamsted	1924	1,261	Fishing. Camping. Camp grounds developed.	Region known to early settlers as "Greenwoods" because of predominance of evergreens in forest.	Popular subscription.
Pootatuck	Forested	New Fairfield	1926	881	Camping will be developed.	Thrifty young and half grown timber.	Purchase.
Simsbury*	Forested	Simsbury	1908–11	130	None	Plantations White and Scotch pine. Trees partially destroyed by fire in 1924.	
Tunxis*	Forested&Physiographic.	Hartland	1923	3,814	Fishing. Camping. Camp ground will be developed.	Adjoins Tolland State Forest of Mass. Laurel grows in profusion. From botanical and forestry of unusual interest. Contains beautiful Falls Brook.	Purchase.
American Legion	Forested	Barkhamsted	1927	322	None as yet	Joins Peoples Forest. Similar characteristics.	Gift of Legion.
Pachaug	Forested	Voluntown	1928	1,767	None as yet		Purchase.

*Resident custodian.

State Monuments

State Park and Forest Commission

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Israel Putnam....	Historical.....	Brooklyn.....	1887	.....	Monument to senior Maj. Gen. American Armies in the Revolution. Erected by the state.	.....
John Mason.....	Historical.....	Pequot Hill, Groton .	1889	.....	Monument to Maj. John Mason who overthrew Pequot Indians in 1637. Erected by the state.	.....
Nathan Hale.....	Historical.....	Coventry.....	1893	.....	Shaft marking grave of patriot. Erected 1837–1857 by the Hale Monument Ass'n. Accepted by state 1893.	.....
Nathaniel Lyon...	Historical.....	Phoenixville Cemetery, Eastford.	1907	.....	Monument to Mexican and Civil War Soldier, killed battle Wilson's Creek, 1861. Probably erected by the family. Care assumed by the state 1907.	.....

FLORIDA

State Parks

Florida Federation of Women's Clubs

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Royal Palm*.....	Physiographic...	Homestead. 48 mi. S. W. Miami.	1915–21	4,000	Roads. Trails. Inn. Picnic ground.	Tropical jungle with splendid royal palms 100 feet high. Large oaks with variety tropical plants, and birds and insects.	State land.

*Park superintendent.

State Monuments

Name	Type	Location	Special characteristics
Dade Memorial [1]...	Memorial.....	Bushnell, Sumter County.	Scene massacre in 1835 of 100 American soldiers, which began the Seminole Indian Wars
Natural Bridge [2]....	Historical.....	Leon County.....	Site battle that name in Civil War.
Port St. Joe [2].....	Historical.....	Calhoun County....	Commemorates first Constitutional Convention held in the state.
Olustee [2].....	Historical.....	?	Site of action in Civil War.

[1] Under commission of which Judge J. C. B. Koonce, Tavares, is Chairman.
[2] Commissioner, Dept. of Agriculture, Tallahassee.

GEORGIA

STATE FOREST PARKS—State Forestry Department

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Vogel*..... ...	Forested&Physiographic.	In Union County, 40 miles from Gainesville.	1926	17	Ideal public camp...	Unusual scenic views; streams, mountain springs, waterfalls, contains top of Blood Mountain. Virgin hardwood forest. Entire area virgin timber.	Gift.
Indian Springs †	Scientific. Partly forested.	Butts County, 48 miles from Atlanta.	1927	10	Casino, hotel, pavilion, bowling, mineral baths.	Historic value. Deeded to State by Indian Treaty of 1801 & 1821.	Placed under forestry Dept. by General Assembly of 1927 to be administered as a park.

*Caretaker, Robert T. Furbish. †Superintendent, J. H. Turner.

STATE PARKS
Department of Public Works

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Heyburn[1] [2].....	Physiographic...	Chatcolet Lake South end Coeur d'Alene Lake. Benewah County.	1911	7,838	Roads. Camp facilities. Docks. Boating. Fishing. Hotel operated by concessionaire. Store and cottages. Permanent camps and houseboats rented $15 per season. Duck hunting & winter sports.	Former Coeur d'Alene Indian Reservation, includes lower reaches St. Joe River, the highest navigable stream in the world, and Chatcolet, Hidden and Benewah Lakes.	Transferred Act Congress, April, 1908, $12,000.
Payette Lake[3]....	Physiographic...	Valley County.....	1909	865	Hotel. Camps. Permanent summer homes. Boating. Fishing. Winter Carnival, ski jumping, skating, etc. Park lands leased to vacationists.	Occupies what is known as the "peninsula" of the lakes which lie in heavily wooded country. Waters of lakes have been set aside for recreational use.	State land set aside by Legislature, 1909.
Lava Hot Springs[4].	Natural Wonder. Physiographic.	Bannock County....	1913	187	Hotel. Camps. Bathing in natural hot springs.	Radio-active waters which make this fine health resort famous from the days of the Old Oregon Trail, when this was a resting point on the route. Indians formerly used springs for healing disease.	Transferred Act of Congress 1902. Set aside as state park by Idaho Legislature, 1913.

[1] Superintendent—Carl Kraemer.
[2] Under administration Department of Public Works.
[3] Under administration State Board of Land Commissioners.
[4] Under administration Department of Public Welfare.

STATE FORESTS
State Land Board

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Priest Lake.....	Forested.....	On Priest River & Lake. North part of state.	1913	194,617	There are 295 lots available for lease for summer homes.	Lakes, rivers and forests constitute superb scenic region. Splendid stand of white pine. 136,232 acres virgin forest.	Exchange with U. S. Forest Service.

ILLINOIS

STATE PARKS
Dept. of Public Works and Buildings

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Starved Rock.....	Scientific.....	98 Mi. S. W. Chicago between Ottawa & LaSalle.	1911	813	Road. Trails. Swimming pool. Free camp grounds. Dance pavilion. Modern hotel. Electric lights. Excursion boats and busses operated under concession.	Numerous cliffs, gulches and canyons carved out of sandstone and limestone bluffs.	$176,190.

Cahokia Mounds..	Historical and Scientific.	E. o E. St. Louis, St. Clair County.	1925	144	Drive. Camp grounds developed.	Contains the "Great Cahokia Mound" or "Monks Mound," largest prehistoric artificial earthwork in U. S.	$49,119.
Fort Chartres.....	Historical.....	3 Mi. N. Prairie du Rochee, Randolph County.	.....	21	Camp grounds.....	Built in 1717 by French. Restored from native rock.	$3,027.
Fort Massac.....	Historical.....	Near Metropolis, Massac County.	1903	194	Camp grounds.....,	Built in 1757 by French, captured in 1765 by British, and taken by Americans under George Rogers Clark in 1778.	$29,500.
Old Salem.....	Historical.....	New Salem, near Petersburg.	1919	80	Camp grounds.....	Site of village where Lincoln lived from 1831 to 1838. Village being restored.	Gift.
White Pine Forest.	Forested.....	9 mi. from Oregon, Ogle County.	1927	275	Camp grounds.....	Forest of white pine, also hardwoods, oak, elm, walnut, hickory, and many other species.	$63,205.
Giant City.....	Scenic and Scientific.	Union and Jackson counties.	1927	750	Camp grounds.....	Natural formations of bluffs and chasms. Huge blocks of stone, cut off from natural formations, stand like buildings. In deep ravines and street-like chasms ferns and wild flowers grow. Spring and cascades clear water.	$30,000.
Black Hawk Watch Tower.	Historical.....	Rock Island.....	1927	200	Hotel.....	Birthplace and burial grounds Indian Chief Black Hawk. Also headquarters during ineffectual warfare waged by him on whites. Prehistoric mounds, pottery, etc. Well wooded.	$200,000.

State Monuments
Department of Public Works and Buildings

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Dixon Block House.	Historical.....	Dixon.....	1921	50 Ft.	Site where Lincoln served as soldier in Black Hawk War in 1832.	$1,000.
Douglas Monument.	Memorial.....	In Chicago.....	1865	1	Monument to Stephen A. Douglas.....	$25,000.
Fort Creve Coeur.	Historical.....	On Peoria Lake.....	1921	15	Built by LaSalle in 1680 to protect party accompanying him in exploration of Illinois River from the Indians.	Gift.
Garrison Hill Cemetery.	Historical & Memorial.	Near Chester.....	1891	25	Site of ancient fortress of Kaskaskia, resting place of pioneers of Old Kaskaskia.	Gift.
Lincoln Homestead.	Historical.....	In Springfield.....	1887	2½ lots.	The only residence ever owned by Abraham Lincoln.....	$12,000.
Lincoln Monument & Memorial Hall.	Memorial.....	Oak Ridge Cemetery, Springfield.	1895	10	Monument to Lincoln containing his body in catacomb.....	Gift.
Lovejoy Monument.	Memorial.....	Alton Cemetery.....	1897	78 Ft.	To Elijah Parsons Lovejoy, forerunner of Emancipation....	Gift.
Metamora Court House.	Historical.....	Metamora.....	1891	9 lots	Built in 1845, now used as Lincoln Memorial Museum.....	Gift.
Pierre Menard....	Historical.....	Fort Gage, Randolph County.	1927	.....	Home of Pierre Menard, Presiding officer of territorial legislature. Elected first Lieutenant-Governor of state in 1818.	.....
Shabbona Monument.	Memorial.....	Near Harding.....	1905	7½	Scene of massacre of 15 whites in the Black Hawk War.....	Gift.
Vandalia Court House.	Historical.....	In Vandalia.....	1920	1 block	Site of first capitol building of Illinois.....	$45,000.

State Forests
Department of Conservation

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Judy Memorial....	1½ mi. N. W. Tallula, Menard County.	1927	80	Will be developed for recreation.	Last remaining section famous Cleary Grove. Fifty species of trees. Beautiful scenic area. All virgin timber.	Gift.

Game Preserves
Department of Conservation

Name	Location	Date created	Area, acres	Game on refuge	Method of acquisition
Horseshoe Lake....	12 mi. North Cairo.....	1927	3,600	Wild geese and ducks.....	Purchase.*
Woodford County..	Near Rome.....	1927	1,700	Pheasants, quail and rabbits.....	Purchase.*

*Cost of purchase not available.

INDIANA

STATE PARKS

Department of Conservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Clifty Falls*.....	Physiographic & Scientific.	Near Madison, Jefferson County.	1920	570	Road. Trails. Camping. Entrance fee 10 cents. Hotel, leased to concessionaire, accommodations from $2.50 up. American plan. Nature guide.	Very rugged, thickly wooded. Many deep gorges. Feature is Clifty Falls 90 feet high with a series of small cascades. Game refuge. Clifty Inn 400 feet above Ohio River commanding view of Ohio Valley and Kentucky Hills.	Gift of Jefferson County and purchase, $25,000.
The Dunes*.....	Physiographic & Scientific.	Near Gary, Porter County.	1925	2,185	Entrance fee 10 cents. 3½ mi. bathing beach. Accommodations 30 or 40 people at Inn and cottages. Park will be developed with huge pier into lake, adequate bathhouses for 3 mi. of beach, restaurant, shelter house, camp sites, and hotel.	Range of spectacular sand hills. Majority land heavily wooded, interspersed with swamp meadows. Greatest dunes on continent. A unique flora of wide variety. Virgin landscape within an hour of 8 million people.	Gift and purchase, $1,100,000.
McCormick's* Creek Canyon.	Scientific & Forested.	3 mi. E. Spencer, Owen County.	1916	385	Road. Trails. Swimming. Entrance fee 10 cents. Hotel accommodations American plan $2.50 per day.	Creek cuts one great canyon thru stone. Grove of magnificent beeches. Game refuge. Great natural swimming pool. Nature guide.	Gift and purchase, $5,000.

Muscatatuck*....	Physiographic...	Between Vernon & North Vernon.	1920	85	Entrance fee 10 cents. Camping. Accomodations at Inn at $2.50 per day. Concessionaire.	Several waterfalls and a stone gorge. Rendezvous for outings & hunters.	Gift by Jennings County and purchase, $4,500.
Pokagon*.....	Physiographic...	Steuben County.....	1925	700	Entrance fee 10 cents. Inn under concessionaire. Accommodations, American plan, $3.50 per day. Bathing beach equipment installed. Trails. Boat livery. Winter sports.	Situated on Lake James offers variety and beauty of shore line. Fine woodland and rolling meadow of surpassing charm. Lake shore of 2¼ miles in park. Lake has 1,700 acres.	Gift of Steuben County and purchase, $42,000.
Turkey Run*.....	Forested & Scientific.	North of Marshall, Parke County.	1916	1,050	Trails. Road. Entrance fee 10 cents. Camping. Hotel accommodations, concessionaire, $2.50 to $3.25 per day. American plan.	Sugar Creek has cut deep canyons through limestone. Three hundred acres primitive woodland. A pioneer log cabin & the Lusk House built of brick & burned to the ground add interest. Game preserve. Nature guide.	Gift through popular subscription and purchase, $75,500.
Donaldson Woods.	Forested & Scientific.	Lawrence County...	1928	1,015	Will be developed for picnics and nature study.	Virgin hardwood timber with tulip trees and white oak predominating. Large cave with two miles of corridors.	Gift of Lawrence Co. and Lehigh Portland Cement Co. Transfer State lands.
Tri-County.....	Forested.....	On boundaries where Clay, Greene and Sullivan counties meet.	1928	1,000	Will be developed for outings and sports. Probably cottages constructed for rental.	Has rugged terrain with young woods.	Gift of counties in which situated.

*Resident custodians.

State Monuments

Department of Conservation.

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Deam Oak.....	Scientific.....	N. W. Bluffton, Wells County.	1925	½ acre...	Hybrid oak—a natural cross between a White Oak and a Chinquapin.	Gift.
Corydon State House.	Historical.....	Corydon.....	1925	City block	The old State Capitol. Building will be restored to its original appearance.	Act Legislature.
Lanier Memorial.....	Memorial.....	Madison, Jefferson County.	1925	City block & levee	Built in 1844 for James F. D. Lanier. Original house restored and furnished as originally.	Gift of Jefferson County Historical Society.
Nancy Hanks Lincoln Burial Ground.	Memorial.....	Lincoln City, Spencer County.	.....	85 acres	The grave of the mother of Abraham Lincoln. Plans for proper development now under way with campaign for $1,250,000 successfully launched. Includes part of Lincoln Farm.	Act Legislature.
Tippecanoe Battlefield	Historical.....	N. Lafayette.....	1925	23 acres	One of momentous battles of Indiana's early history.	Act Legislature.

State Forests
Department of Conservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Clark County*....	Forested.....	1 mi. N. Henryville, Clark County	1903	4,500	Road. Picnic ground. Camp sites will be leased.	Area rough and broken. Forested with second growth hardwoods and Jersey scrub pine. Nursery. Game Refuge. 95% timber. 200 acres experimental planting.	Purchase.

* Resident custodian.

Game Preserves
Department of Conservation

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
BrownCounty State Game Reservation.	South Nashville, Brown County	1924 to 1928	11,587 will be increased to 12,000	Purchased from license money. Open to hikers. No hunting allowed. Fishing will be provided for.	Stocked with Ring-neck pheasants, wild turkey, Hadoration ruffed grouse, quail. Small game animals. Hunting prohibited.	$117,000.
Kankakee State Game Preserve.	N. & E. English Lake.	Legislative act in 1923, actually turned over 1925.	2,302	Fishing. Four drainage ditches in this preserve, also old bed of Kankakee River.	Meander lands of Kankakee River. Fur-bearing animals. Prairie chickens. Ring-neck pheasants. Quail. Wild Turkey.	State meander land turned over to F. & G. Div.

IOWA

STATE PARKS

Board of Conservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Ambrose A. Call..	Scientific & Forested.	1 mi. S.W. of Algona, Kossuth County.	1926	134	None.....	Rugged area made up of glacial material left by Wisconsin ice age. Many trees of forest primeval including black walnut bur oak, and magnificent elm.	Gift.
Backbone.....	Natural Wonder & Scientific.	3 mi. S. W. Strawberry Point, Delaware County.	1918	1,280	Camping facilities. Group camps. No permanent camps.	Extremely rugged, limestone rocks rising 80 to 100 feet above Maquoketa River. Numerous caverns and crevices, unique springs. Game preserve.	Purchase.
Bellevue.....	Scientific & Forested.	Bellevue, Jackson County.	1925	146	Shelter House.....	Precipitous rocks face the Mississippi. Galena limestone and shale deposits. Splendid forest cover.	Gift & purchase.
Bixby.....	Natural Wonder & Forested.	2 mi. N. Edgewood, Clayton County.	1926	69	None.....	Remarkable for fine ice cave, good springs and forest cover.	Gift & purchase.
Flint Hills.....	Forested.....	1 mi. N. Burlington, Des Moines.	1925	101	None.....	Deep tree covered ravines and several narrow hog-backs. Hills surrounding park known as flint hills.	Gift & purchase.
Theo. F. Clark....	Forested.....	2½ mi. E. Traer, Tama County.	1920	24	None.....	Small stream, Wolfe Creek, flows through park. Forest cover of fine basswood, slippery and American elm, etc.	Gift.

Clear Lake	Forested & Physiographic.	S. Clear Lake, Cerro Gordo County.	1923	20	Camping facilities. Bathing.	Lake frontage 940 feet. Fine marsh, bird and plant refuge west of park proper. Excellent forest cover.	Gift & purchase.
Devil's Backbone.	Scientific.....	S. W. Winterset, Madison County.	1923	225	None.....	Backbone formed by Middle River is 200 feet above riverbed and 12 to 14 feet wide. Hill underlaid with limestone and rich in fossils.	.....
Dolliver Memorial	Memorial & Forested. Scientific.	14 mi. S. E. Fort Dodge, Webster County.	1921	545	Camping facilities. Bathing. Water unfit for bathing. No especial camping facilities. Shelter house.	Sandstone cliffs face Des Moines River, extending back into large ravines. Numerous small ravines, fine springs and small streams. Commemorates Senator Jonathon P. Dolliver. Tablet erected to his memory done by Lorado Taft. It hangs on a sandstone cliff.	Gift. Purchase.
Eagle Lake.....	Forested.....	Near Garnes & Britt, Hancock County.	1924	27	Excellent fishing. Camping. Shelter House.	On west shore Eagle Lake. Rolling land covered growth oak, walnut, thornapple, black cherry, linden, elm and several varieties shrubs.	Purchase.
Elbert Tract.....	Forested.....	10½ mi. S. W. Des Moines, Polk County.	1925	261	None.....	Coon River forms boundary park. Has an interesting bayou. Area consists sandy bottoms, partly subject to overflow. Well forested virgin growth. American elm and sycamores.	Gift & purchase.
Edora Pine Creek	Forested & Scientific.	Near Eldora, Hardin County.	1920	236	Artificial lake. Fine bathing beach and bath house. Herbert Quick born near head waters of little creek which is dammed to make lake.	Rough topography, rare plant life, fine growth native timber, several white pines several centuries old. Number of Indian mounds.	Gift & purchase. $17,500.

STATE PARKS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Farmington	Physiographic	W. Farmington, Van Buren County.	1919	102	None	Contains a natural bayou lake. American lotus is found in abundance and large variety of trees. Game preserve.	Gift.
Flanders-Bixby	Physiographic	Hamilton, Marion County.	1926	5	None	Rough topography with small creek with exposure coal measure sandstone, covered with ferns, asters, etc.	Gift.
Ft. Defiance	Forested & Scientific.	W. edge Estherville, Emmet County.	1922	53	None	Large amounts of drift material of the Wisconsin drift sheet may be seen. Excellent forest cover.	Gift & purchase.
Gitchie Manito	Scientific	Near Sioux Falls and Larchwood, Lyon County.	1926	47	None	Jasper Pool, surrounded by Sioux quartzite, a southwestward prolongation of Minnesota Point.	State land.
King	Historical & Forested.	7 mi. N. E. Guthrie Center, Guthrie County.	1926	131	None	One of overland trails used by gold-seekers of 1848. Fine forest cover, principally oak.	Gift & purchase.
Hamburg Tract	Physiographic	S. W. Sidney, Fremont County.	1926	200	None	Region typical of Missouri loess topography, i.e. west and south slopes devoid of timber; north and east covered with trees and shrubs.	Purchase & gift.
Lacey-Keosauqua	Historical & Scientific.	1 mi. S. W. Keosauqua, Van Buren County.	1920	1,222	Golf course. Camp grounds. No especial facilities for camping.	Interesting Indian mounds and old Indian camp. Fine limestone and sandstone ledges. Region of interesting history.	Gift & purchase.

Ledges	Scientific	4 mi. S. Boone, Boone County.	1921	584	Camp grounds. No speecial facilities for camping. Trails.	Outcrops of coal measure and sandstone on both sides Des Moines River. Cliffs rise more than 100 feet in height. Forest region connects closely with prairie next to deep canyons and gorge.	Gift & purchase.
Lepley	Physiographic	7 mi. S. Eldora, Hardin County.	1919	9	Log cabin. Camping facilities.	Interesting mature Iowa flood plain forest adjacent to Iowa River.	Gift.
Lewis & Clark	Scientific & Historical.	3 mi. W. Onawa, Monona County.	1920	675	Fishing. Monument erected marking landing place of Lewis and Clark.	Is what is termed an oxbow lake and was formerly channel of Missouri River. Lewis and Clark landed in park area on memorable trip.	State owned and exchange of property.
Lost Island Lake	Physiographic	3 mi. N. Ruthven, Palo Alto County.	1921	28	Fine shelter house. Bathhouse.	Area of lake is 1,076 acres. Park is well forested.	Purchase.
Maquoketa Caves	Scientific	7 mi. N. W. Manquoketa, Jackson County.	1921	17	None	Adjacent to prairie contains unique limestone gorge and natural bridge. Top of bridge is flat, arch rises 20 feet above base and is 20 or 30 feet thick. Contains Morehead Caves typifying great erosive and dissolving power running water.	Purchase.
Oak Grove	Physiographic & Scientific.	4 mi. N. Hawarden, Sioux County.	1923	101	None	Prairie and woodland. Bluffs are steep, exposing dark, shaly material. Interesting exposure Sioux quartzite.	Purchase.
Okamanpadu	Forested	2 mi. N. E. Dolliver, Emmet County.	1923	10	None	Located on Tuttle Lake. Well timbered.	Donation.
Orleans	Physiographic	½ mi. N. Spirit Lake, Dickinson County.	1923	20	Fishing	Prairie formation, morainic hills	State land.
Palisades	Physiographic	11 mi. S. W. Cedar Rapids, Linn County.	1922	159	None	Flood plain of Cedar River and upland, vertical cliffs of limestone 30 to 75 ft. high. Rugged walls border river. Deep gullies slope toward river. Fine specimens oak.	Purchase & gift.

STATE PARKS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Pilot Knob	Scientific	4 mi. E. Forest City, Hancock - Winnebago County.	1922	288	Driveway	The Knob is 300 feet above valley of Lime Creek said to be part of eastern moraine of Wisconsin drift. Small glacial lake near entrance called Dead Man's Lake.	Gift & 168 acres purchase.
Rice Lake	Scientific	3 mi. S. E. Lake Mills, Winnebago-Worth counties.	1924	51	Bathing	Contains five state-owned wooded islands. Shore of lake connects with peat bogs. Park and lake lie in Wisconsin drift sheet.	Gift & 22 acres purchase.
Silver Lake	Scientific	Near Delhi, Delaware County.	1923	15	Fishing	Region in Iowa drift sheet, shores lake sandy and excellent, little marsh land.	State land.
Storm Lake	Forested	2 mi. S. E. Storm Lake, Buena Vista County.	1923	18	Fishing	Shore of Storm Lake. Slippery and American elms, green ash, bur oak, almond and black willows, and sand bar willow in low grounds.	Gift & purchase.
Twin Lakes	Forested	5 mi. N. Rockwell City, Calhoun County.	1923	15	Fishing. Stoves available outdoor cooking.	Shores of Twin Lakes. Very few trees. We have reforested it and trees are growing nicely.	State land, purchase & gift.
Wall Lake	Forested	10 mi. N. Blairsville, Wright County.	1922	12	Good fishing	On shore Wall Lake. Excellent forest cover.	Purchase & gift.
Wapsipinicon	Scientific	S. of Anamosa, Jones County.	1921	220	Road system	Limestone bluffs, rising 60 to 100 ft. from the stream. One interesting cave in which skulls and bones of wild animals have been found.	Gift & purchase.

Wild Cat Den....	Physiographic & Scientific.	10 mi. N. E. Muscatine County.	1926	220	None.....	Fine hills, rough topography, exposures limestone ledges of carboniferous epoch.	Gift & purchase.
Wood Thrush Park Preserve.	.....	Jefferson County....	1928	26	Preserve for birds...	[1].....	Gift.
Woodman Hollow.	Forested, some original prairie.	14 mi. S. E. of Fort Dodge, Webster County, 2 mi. north of Dollur's along Des Moines River.	1927	40	Preserve for plant life. Very rare plants found here especially ferns.	[1].....	Purchase & exchange of land.

[1] No descriptions available.

STATE MONUMENTS

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Ft. Atkinson.....	Historical.....	4 mi. S. W. Calmar, Winneshiek Co.	.....	5	Fort built 1840 as protection against Winnebago Indians. Original cost, $93,000.	Gift.

KANSAS

STATE PARKS

State Fish and Game Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Meade County...	Physiographic...	12 mi. S. W. Meade, Meade County.	1926	920	Lakes being built 160 acres water when finished.	At the head of the water course of Stumpy Aroya. Some of the finest springs in the west. Scene of Dull Knife's Indian raid. Game preserve & Fish hatchery.	$28,000.
Neosho County [1]..	Physiographic...	N. of Parsons, Neosho County.	1926	217	Lake 100 acres built. Camping.	In deep ravine near Neosho River Fish Hatchery.	Gift of Izaak Walton Chapters at Parsons, Erie, Chanute & St. Paul.
Scott County [1]...	Physiographic...	12 mi. N. Scott City, Scott County.	1926	1,280	Will impound about 200 acres water.	Two canyons where bloodiest Indian battles of the plains were fought. Famous old Indian pueblo, El Quarteljos. Fish Hatchery.	$23,040.
Crawford County.[1]	Physiographic...	Near Pittsburgh, Crawford County.	1926	440	Being forested. 50 acres water.	Very rough and well watered.....	Gift of Izaak Walton League at Pittsburg.
Ottawa County...	Physiographic...	Near Bennington....	1927	720	136 acres lake surveyed.	High rolling country.....	Condemned and in process of purchase at $31 per acre.

[1] Resident caretakers.

State Monuments

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
John Brown Memorial.	Memorial.....	Osawatomie.....	1910	20	Camping grounds....	Site of defeat in 1856 of Capt. John Brown's force of forty men by 400 "Border Ruffians."	$1,800.
Pawnee Rock[1]....	Memorial.....	Pawnee Rock.....	.....	20	Camping grounds....	Site of a battle in the last Indian War.	.....
Fort Hayes[2].....	Historical.....	Hays.....	1902	200	Picnic grounds. Golf course.	.....	Ceded by Congress.

[1] Caretaker.
[2] Supervision Supt. Experiment Station, State Agricultural College.

KENTUCKY

STATE PARKS

Kentucky State Park Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Blue-and-Gray...	Physiographic...	Elkton, Todd County.	1925	87	Field cook ovens. Camp grounds, charge 50 cents to 75 cents per night. Hotel. Swimming pool.	Wild, rugged strip of woods, water and ravines.	Gift.
Cumberland.....	Physiographic...	Pineville, Bell County.	1925	2,000	Camp grounds; 35-acre lake; boats; bathing; cottages.	Region great natural beauty and physical charm.	Gift.
Kentucky Natural Bridge.	Natural Wonder.	Natural Bridge, Powell County.	1926	137	Boating, bathing facilities, refreshment stand. Camp grounds. Hotel. Admission to park 10 cents.	Great rock arch, composed of Pottsville conglomeratic sandstone 85 feet wide at bottom. Ridge 35 feet broad at top.	Gift.
Pioneer Memorial.	Stockade.....	Harrodsburg, Mercer County.	1926	12 to be enlarged.	Field ovens, wood and water; 75 cents per night to tourists; rest rooms, cabins, picnic benches, camp sites.	Old Fort Harrod Hill, first settlement in Kentucky, established by Gen. George Rogers Clark, hero of Vincennes, Ind.	Gift.

State Monuments

"My Old Kentucky Home Commission" [1]

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
"My Old Kentucky Home".	Memorial.....	Bardstown.....	1922	235	Old John Rowan Homestead, immortalized by Stephen Collins Foster's song, "My Old Kentucky Home," and where he wrote some 170 other songs, among them "Massa's in the Cold, Cold Ground," "Old Black Joe," etc.	Gift.

[1] Governor ex-officio Chairman.

State Forests

Kentucky Forest Service

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Kentenia.....	On Pine Mountain, Harlan County....	1919	3,624	Trails will be opened up. No other development contemplated at present.	Cut-over land. Valuable demonstration area. Chestnut oak 70%, white oak 5%, virgin timber. Second growth tulip popular. Hemlock.	Kentenia Catron Corporation.

LOUISIANA

State Forests

Department of Conservation

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
The State Forest[1].	Near Woodworth, Rapides Parish.....	1923–1926	5,870	Road, camp grounds and permanent boy scout camp will be developed. Fishing.	Well stocked with trees varying ages making it an excellent example of possibilities reforestation. Fish hatchery of 209 acres. Good streams. State forest nursery. Game sanctuary. Fishing. Pheasant culture.	$25,519.13

[1] Resident custodian.

Game Preserves

Department of Conservation

Name	Location	Date created	Area, acres	Special characteristics	Method of acquisition
State Wild Life Refuge.	Vermilion Parish.....	1912	13,000	Fur-bearing animals, geese, ducks, snipe, shorebirds, rails, coots, deer and numerous non-game waterbirds.	Gift.
Marsh Island.....	Iberia Parish.....	1920	79,000	Same as above.....	Gift.
Rockefeller.....	Cameron & Vermilion Parishes.....	1920	86,000	Same as above.....	Gift.
Singer Wild Life Refuge.	Madison Parish.....	1926	81,000	Deer, rabbits, squirrels, fur-bearing animals, ducks, turkeys, woodcock and non-game animals.	20 year lease.
Paul J. Rainey....	Vermilion Parish.....	1921	23,000	Wild waterfowl, shorebirds. Fur animals, deer, rails, numerous non-game waterbirds, etc.	Gifts, Audubon Societies.

MAINE

State Monuments

Superintendent of Buildings

Name	Type	Location	Date created	Acres	Special characteristics	Method of acquisition
Fort Machias	Historical	Machiasport	1922	25	Earthworks only	Purchased
Fort Knox	Historical	Prospect	1922	125	Granite structure on Penobscot River, built to protect Bangor. Largest Fort of its type in United States.	Purchased
Fort Edgecomb	Historical	Edgecomb	1922	315	Important part in French and Indian, and Revolutionary Wars. Well-preserved octagonal blockhouse.	Purchased
Fort Baldwin	Modern	Phippsburg	1922	45	Figured in early Wars. Armed and used up to World War. Modern Coast Defense Fortress.	Purchased
Fort Popham	Historical	Phippsburg	1922	4.5	Site of temporary settlement of English in 1607 preceding Plymouth. Granite structure uncompleted during Civil War.	Purchased
Ft. St. George	Historical	St. George	1922	2.63	Breastworks built in 1809 for Coast Defense	Purchased
Fort McClary	Historical	Kittery	1922	25	Formerly Ft. William, named for Sir William Pepperell	Purchased
South Sugar Loaf Islands	Historical	Phippsburg	1922	3	Small rocky islets	Purchased
Ft. William Henry	Historical	Pemaquid	1894	2	Stone Fort built in year 1692, ruins dug up and reconstructed in year 1894.	Subscription
Naval Coaling Station	Modern	Lamoine	1928	35	Coaling Station and Wharf with large drill field and outbuildings.	Subscription

MARYLAND

State Forests

State Department of Forestry.

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Garret County:	Forested & Physiographic (Allegany Plateau).				Fishing, boating, swimming, camping, hiking.	500* acres of virgin timber. Highest altitude Allegany Mountains in Maryland. Beautiful scenic country. Northern hardwood type of forest: Beech, birch, maple, oaks, hemlock, white pine.	Gift and purchase, 223 acres—$3,345.
Skipmish		5 mi. Oakland	1906	888			
Brier Ridge		4 mi. Oakland	1906	931			
Herrington Manor		3½ mi. Hutton Station.	1906	712			
Kindness		½ mi. Hutton Station.	1906	206			
				2,737			
Fort Frederick	Forested and Historical.	Base Fairview, Washington County foothills of Allegany Mts.	1922	190	Camping facilities.	Historical interest. Built in 1756, by Colonial Gov. Horatio Sharp as defense against Indians. Used by Continental Army during Revolutionary War. In Civil War was garrisoned by detachment Union Artillery. No virgin timber.	Purchase, $12,000.
Patapsco	Forested & Physiographic (Piedmont Plateau).	Near Baltimore	1912	916	Fishing, canoeing, swimming. Camp sites. Community camps.	Two high, sloping banks with a cover of timber—a winding river between. 75 acres of virgin timber.	Gift and purchase, 754 acres—$52,000.

The above three forests are located at 100 mile intervals—the Patapsco within 10 miles of Baltimore, used as a state park, and for the people of Baltimore, a city of 800,000 people, and admirably adapted for recreational use. Fort Frederick, 100 miles from Baltimore, is of special historic significance. It borders the Potomac River, is near the National Highway, and valuable as a recreation center. A number of the patriotic societies have planted memorial groves of trees. Garrett County Forests, 200 miles from Baltimore, in the higher altitudes, with an invigorating mountain atmosphere, are especially attractive. Each of these forests is in charge of a Resident Warden.

Game Refuges

Conservation Department

Name	Location	Area, acres	Date created	Species of game	Method of acquisition
Thayer	Garrett County	1,029	1927	Ruffed grouse, deer, cottontail rabbits, bob-white quail, ring-necked pheasants, wild turkeys.	All game preserves acquired through purchase. Cost not available
Billmeyer	Allegany County	656	1923	Ruffed grouse, deer, cottontail rabbits, bob-white quail, ring-necked pheasants, wild turkeys.	
Washington Orchard Co.	Allegany County	393	1927	Ruffed grouse, deer, cottontail rabbits, bob-white quail, ring-necked pheasants, wild turkeys.	
Washington Orchard Co.	Washington County	1,570	1927	Ruffed grouse, deer, cottontail rabbits, bob-white quail, ring-necked pheasants, wild turkeys.	
Club House Refuge	Montgomery County	76	1925	Bob-white quail, cottontail rabbit, squirrel, ring-necked pheasants.	
Game Farm Refuge	Baltimore County	290	1919	Deer, bob-white quail, wild geese, cottontail rabbits, wild ducks, ring-necked pheasants, swan, wild turkeys.	
Johnsons Schoolhouse Refuge.	Wicomico County	175	1926	Bob-white quail, cottontail rabbits, squirrel, pheasants.	

MASSACHUSETTS

State Parks

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Mt. Greylock[1]	Forested	N. E. part State, Berkshire County.	1898	8,600	Road. Trails. Hotel Camp sites.	Includes Greylock Mountain, 3,505 feet, summits of several hills, well wooded, trees many varieties.	Gift. $94,700.00
Wachusett Mountain.[2]*	Physiographic	In Princeton and Westminster.	1899	1,500	Road. Hotel. Camp house at summit.	Summit mountain 2,000 feet above sea level.	$55,000.00
Mt. Everett[3]	Physiographic	S. W. Corner State	1905	815	Road. Trails	Includes summit Mt. Everett 2,645 feet and Guilder Pond, the highest lake in the state.	
Deer Hill[4]*	Forested	Near Northampton	1908	259	Trails for foot and horseback riding.	Undeveloped timber land 900 feet above sea level.	$4,200.00
Mount Tom[5]	Forested	Between Holyoke & Northampton.	1903	1,679	Roads. Trails. Camp sites.	Precipitous trap rock ridge. Well wooded with pine, hemlock, spruce and hardwoods.	$40,195.80
Purgatory Chasm[6]	Physiographic & Forested.	In Sutton	1919	80	.....	The chasm lies between great ledges and averages 40 ft. in width and between 48 and 80 feet in depth. Well wooded.	$3,352.50
Mount Sugar Loaf[7]	Forested & Physiographic.	28 mi. N. Springfield. Franklin Co.	1907	90	Roads. Paths	Forested mountain, 300 to 700 foot elevation.	.....

[1] Administered by Special Commission, Francis W. Rockwell, Pittsfield, Chairman.
[2] Administered by Special Commission, Frank C. Smith, Jr., Worcester, Chairman.
[3] Administered by Special Commission, Peter J. Tyler, Lenoxdale, Secretary.
[4] Administered by Special Commission, appointed by Hampden County Commissioners.
[5] Administered by Special Commission, N. Seeley Hitchcock, Easthampton, Chairman.
[6] Administered by Special Commission, A. E. Seagrave, Uxbridge, Chairman.
[7] Administered by Franklin County Commissioners, Greenfield.
* Resident Superintendent.

STATE FORESTS
Department of Conservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Arthur Warton Swann.	Forested and farm.	Monterey & Great Barrington, Berkshire County.	1918	987	Road. Trails. Camping.	2.3 of area is forested. Old pastures are being planted.	Gift. $986.75
Ashburnham.....	Forested.....	Ashburnham, Worcester County.	1924	1,078	Road. Trails. Camping.	Mostly cut-over land, planted to pine elevation to 1,500 ft.	$2,798.95
Barre.....	Forested.....	Worcester County...	1925	349	Road. Trails. Camping.	Mixed hardwoods & young pine.....	$1,699.50
Bash Bish.....	Physiographic & forested.	Mt. Washington, Berkshire County.	1924	390	Road. Trails. Camping.	Elevation 1,400-1,700 ft. Contains celebrated Bash Bish Falls.	$5,254.00
Beartown.....	Forested.....	Monterey, Berkshire County.	1921	7,400	Road. Trails. Camping.	Elevation, 1,200–2,100 ft. Mixed hardwoods & pine, hemlock & spruce.	$33,688.45
Blandford.....	Forested.....	Chester, Hampden County.	1924	1,735	Road. Trails. Camping.	Partly cut-over, and young growth..	$8,959.87
Brimfield.....	Forested.....	Hampden County....	1924	910	Road. Trails. Camping.	Elevation, 1,500 ft. Mixed, young growth.	$3,627.90
Clarksburg.....	Forested.....	Clarksburg, Berkshire County.	1923	1,764	Road. Trails. Camping.	Elevations to 2,260 ft. Mixed hardwoods.	$7,501.89
Colrain.....	Forested.....	Heath, Franklin County.	1920	1,206	Road. Trails. Camping.	Mostly cut-over, planted land.....	$6,363.00
Conway.....	Forested.....	Conway, Franklin County.	1920	1,563	Road. Trails. Camping.	Mostly cut-over, planted land.....	$8,377.28

STATE FORESTS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Erving	Forested	Erving, Franklin County.	1920	4,432	Road. Trails. Camping.	Mostly cut-over, planted land	$21,254.81
Foxborough	Forested	Foxborough, Norfolk County.	1926	662	Road. Trails. Camping.	Mostly cut-over, rather rocky—planted.	$4,145.80
Harold Parker	Forested	Andover, Essex County.	1916	1,327	Road. Trails. Camping.	Mostly cut-over, planted	$7,460.00
Hawley	Forested	Hawley, Franklin County.	1923	2,131	Road. Trails. Camping.	Mostly cut-over, planted	$9,932.50
Hubbardstown	Forested	Plainfield, Worcester County.	1924	724	Road. Trails. Camping.	Mostly cut-over, planted	$2,719.35
Leominster	Forested	Leominster, Worcester County.	1922	1,636	Road. Trails. Camping.	Mostly cut-over, planted	$7,824.15
Martha's Vineyard	Forested	Edgartown & West Tisbury-Dukes Co.	1925	4,472	Road. Trails. Camping.	Waste lands, planted	$8,457.81
Mohawk Trail	Physiographic & forested.	Hawley, Franklin County.	1921	5,419	Road. Trails. Camping.	Scenic roads, and planted areas, elevations to 2,000 ft.	$71,799.50
Monroe	Forested	Monroe, Franklin County.	1924	2848.57	Road. Trails. Camping.	Mostly cut-over and planted	$9,913.00
Mount Grace	Physiographic & forested.	Warwick, Franklin County.	1920	1,066	Road. Trails. Camping.	Mostly forested, elevation 1,600 ft.	$46,150.00
Myles Standish	Forested	Carver & Plymouth, Plymouth County.	1916	8,869	Road. Trails. Lots leased $10 per year five year basis. Camping grounds. Group camps. Admission 10c.	Contains twelve ponds of varying size—well covered with scrub-oak & pine & many planted areas.	$20,663.00

Northfield	Forested	Northfield, Franklin County.	1924	235	Road. Trails. Camping.	Mostly cut-over, planted	$1,060.00
Oakham	Forested	Oakland, Worcester County.	1922	800	Road. Trails. Camping.	Mostly cut-over, planted	$2,693.70
October Mountain*	Physiographic & forested.	Washington Berkshire County.	1922	13,652	Road. Trails. Camping.	Heavily seeded to spruce—much fairly well grown.	$64,515.50
Otis	Forested	Otis, Berkshire County.	1923	2,772	Road. Trails. Camping.	On shore of white Lily Pond. Scattering growth.	$11,224.06
Otter River*	Forested	Winchendon, Worcester County.	1915	1,812	Road. Trails. Camping.	Well planted, in all sections, mixed hardwoods, and conifers.	$8,628.00
Oxford	Forested	Worcester County	1924	28	Road. Trails. Camping.	Mixed hardwoods	$143.50
Peru	Forested	Peru, Berkshire & Hampshire counties.	1924	1,588	Road. Trails. Camping.	Mixed hardwoods	$7,647.00
Petersham	Forested	Petersham, Worcester County.	1924	248	Road. Trails. Camping.	Cut-over land.	$992.00
Pittsfield	Forested	Pittsfield, Berkshire County.	1922	1,155	Road. Trails. Camp-	Cut-over land	$5,467.00
Sandisfield	Forested	Sandisfield, Berkshire County.	1922	4,210	Road. Trails. Camping.	Abandoned farm land, fine reproduction.	$18,880.55
Savoy Mountain	Physiographic & forested.	Savoy, Berkshire County.	1917	6,917	Road. Trails. Camping.	Mixed hardwoods, elevation to 2,500 feet.	$33,240.00
Shawme*	Forested	Sandwich, Barnstable County.	1921	8,372	Road. Trails. Camping.	Scrub-oak and pine—very sandy	$12,592.00
Shutesbury	Forested	Shutesbury, Franklin County.	1924	638	Road. Trails. Camping.	Cut-over land	$2,965.00
Spencer	Forested	Spencer, Worcester County.	1924	650	Road. Trails. Camping.	Cut-over land	$3,342.00

STATE FORESTS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Sutton	Forested	Sutton, Worcester County.	1924	263	Road. Trails. Camping.	Cut-over land	$1,258.80
Templeton	Forested	Templeton, Worcester County.	1924	377	Road. Trails. Camping.	Cut-over land	$1,887.54
Tolland-Granville*	Forested	Tolland, Hampden County.	1920	4,682	Roads. Trails. Camping.	Cut-over land	$21,554.50
Warwick	Forested	Warwick, Franklin County.	1922	960	Roads. Trails. Camping.	Cut-over land	$4,579.95
Wendell	Forested	Wendell, Franklin County.	1921	4,667	Roads. Trails. Camping.	Cut-over land	$22,755.00
Westminster	Forested	Westminster, Worcester County.	1924	335.12	Roads. Trails. Camping.	Cut-over land	$1,693.78
Windsor	Forested and physiographic.	Windsor, Berkshire County.	1923	1,450	Roads. Trails. Camping.	Contains celebrated gorge known as Windsor Jaws.	$8,558.25
Worthington	Forested	Worthington, Hampshire County.	1923	225	Roads. Trails. Camping.	Cut-over land	$1,500.00
Unassigned Lots				1,239			
Campbell Falls	Physiographic	New Marlborough	1923	4		Contains celebrated Campbell Falls, of great scenic beauty.	Gift.

*Have resident caretaker or ranger.

Game Preserves[1]

Division of Fisheries and Game, Department of Conservation.

Name	Location	Date created	Area, acres	Game and birds on refuge	Method of acquisition
Martha's Vineyard Reservation	Dukes County	1907	1,601	A few quail	Legislative act.
Boxford Reservation	Essex County	1922	229	Rabbits, pheasants, grouse	Gift.
Isaac Sprague Bird Sanctuary	Essex County	1922	110	Water birds, shore birds	Gift.
Ram Island Sanctuary	Plymouth County	1925	2	Gulls and terns	Gift.
Knight Bird Refuge	Essex County	1925	15	Gulls and terns	Gift.
Mount Watatic Sanctuary	Middlesex and Worcester counties	1926	137	Rabbits, pheasants, grouse	Gift.
Minns Wild Life Sanctuary	Worcester County	1926	127	Rabbits, pheasants, grouse	Gift.
Henry Cabot Lodge Bird Sanctuary	Essex County	1925	3	Gulls and terns	Legislative act.
Penikise Island Sanctuary	Dukes County	1924	100	Gulls and terns	Legislative act.

[1] The State Forests are also Game Preserves.

MICHIGAN

State Parks

Department of Conservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Aloha	Forested	Within Aloha Village, Cheboygan County.	1923–1924	35	Swimming in Mullet Lake. Rest house. Fishing. Camping	Excellent fishing and boating on one of Michigan's finest inland lakes.	Gift from Cheboygan County.
Baraga	Forested	1 mi. S. Baraga, Baraga County.	1921	40	Swimming. Camping facilities. Roads.	Approximately 2,250 feet frontage on Keweenaw Bay. Densely wooded. Heart of lumber industry.	Gift from Baraga County.
Bay City*	Forested	7 mi. N. Bay City, Bay County.	1922	115	Excellent bathhouse. Boating. Fishing. Store in park. Camping facilities. Road.	¾ mi. frontage Saginaw Bay. Bathing and boating unexcelled.	Gift from Bay City.
Benzie	Forested	11 mi. N. Empire, 11 mi. S. Frankfort, Benzie County.	1923	12	Excellent camping	Site in picturesque location	Gift from J. W. Dye and wife.
Bloomer No. 1	Forested	4½ mi. NE. Walled Lake, Oakland County.	1923	36	Road. Camp facilities. Trails. Swimming. Middle Straits Lake.	On chain of popular lakes	Gift from H. B. Bloomer.
Bloomer No. 2	Forested	1 mi. E. Rochester, Oakland County.	1923	47	Road. Camp facilities.	On bank of river overlooking city of Rochester.	Gift from H. B. Bloomer.
Bloomer No. 3	Forested, physiographic.	1 mi. N. Ortonville, Oakland County.	1923	100	Road. Camping	Most scenic section of Oakland County.	Gift from H. B. Bloomer.

*Resident superintendent twelve months.

Bloomer No. 4....	Forested.....	8 mi. W. Clarkston..	1923	35	Camp ground on Grass Lake.	Densely wooded with oak, hickory and maple.	Gift from H. B. Bloomer.
Brimley.....	Forested.....	2 mi. N. E. Brimley, Chippewa County.	1922	50	Swimming, White Fish Bay. Bathhouses. Camping. Road. Fishing.	On Waiske Bay—a refuge for boats sailing Lake Superior. Densely wooded.	Gift.
Burt Lake*.....	Forested.....	1½ mi. S. Indian River. Cheboygan County.	1921	85	Roads. Bathhouse. Enclosed pavilion. Camping space. Fishing. Rest house. Store in park.	Heart of Northern Michigan's best fishing.	Gift.
Cedar Hills.....	Physiographic, scientific.	9 mi. S.W. Clinton, Jackson, Lenawee & Washtenaw counties.	1922	270	Fishing Round Lake. Bathing Wamplers Lake. Bathhouse. Camp ground store in park.	A part of famous Irish hills overlooking beautiful Wampler Lake.	Part gift and part purchase.
Cheboygan.....	Forested.....	Cheboygan City, Cheboygan County.	1920	15	Road. Shelter house. Stoves, tables & benches.	Beautiful grove pine trees.....	Gift.
D. H. Day.....	Scientific.....	¼ mi. S.E. Glen Haven, Leelanan County.	1920	32	Road. Bathhouses. Swimming Lake Michigan. Cabin pavilion. Camp facilities. Fishing.	The most romantic of Michigan's sand dunes regions.	Gift.
Dodge Bros. 2....	Forested.....	2 mi. S. Walled Lake, Oakland County.	1922	26	Campstoves. Swimming, Walled Lake.	Popular for picnics and week-end outings.	Gift.
Dodge Bros. 4....	Physiographic...	6 mi. W. Pontiac, Oakland County.	1922	135	Road. Swimming Cass Lake. Camp stoves, tables and benches.	One of largest lakes in Oakland County.	Gift.

*Resident superintendent twelve months.

STATE PARKS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Dodge Bros. 5....	Physiographic...	1 mi. E. Commerce, Oakland County.	1922	193	Road. Swimming Lower Straits Lake. Camp stoves and benches.	Sparsely wooded.....	Gift.
Dodge Bros. 3....	Physiographic...	6 mi. W. Pontiac, Oakland County.	1922	13	Undeveloped.....	Sparsely wooded.....	Gift.
Dodge Bros. 6....	Physiographic...	2¼ mi. S.W. Birmingham, Oakland County.	1922	36	Camp stoves, tables & benches. Road.	A convenient place to camp	Gift.
Dodge Bros. 7....	Forested.....	4½ mi. N.E. Oxford, Oakland County.	1922	200	Undeveloped.....	Densely wooded—Game reserve...	Gift.
Dodge Bros. 8....	Forested.....	2 mi. S. Utica, Macomb County.	1922	31	Road. Store at park. Camp stoves, tables & benches.	Large trees and river bottom foliage.	Gift.
Dodge Bros. 9....	Forested.....	¼ mi. S. W. Rockwood, Monroe County.	1922	37	Camp stoves, tables & benches.	River frontage. Wooded large specimens beech, maple, and elm.	Gift.
Dodge Bros. 10...	Forested.....	½ mi. E. Highland, Oakland County.	1922	115	Camp stoves, tables & benches.	Well wooded area with striking topography on Pickerel Lake.	Gift.
Dodge Bros., Munuskong Bay.*	Forested.....	7 mi. N.E. Pickford, Chippewa County.	1925	2,440	Undeveloped.....	Complete cover trees, shrubs, and plants. Munuskong River flows through park.	Gift.

* Resident superintendent twelve months.

East Tawas.....	Physiographic...	East Tawas City, Iosco County.	1920	16	Fishing. Boating. Bathing Lake Huron. Bathhouse. Rest house. Road. Camp stoves. Electric lights.	Fishing, boating, bathing are unexcelled.	Gift.
F. W. Fletcher....	Forested.....	23 mi. N.W. Alpena, Presque Isle.	1921	160	Camp grounds.....	Remnant Michigan's first hardwood forest in its primeval state.	Gift.
Fort Wilkins*....	Historical, forested.	1 mi. N.E. Cooper Harbor, Keweenaw County.	1921	110	Roads. Swimming, Lake Superior. Camping facilities. Store in park.	Old fort building, stockade, etc., most northern tip of northern peninsula in Lake Superior copper country.	Acquired from U. S. Government.
Gladwin.....	Forested.....	Within Gladwin City, Gladwin County.	1920	12	Camp stoves, tables & benches.	Camp site on Cedar River.....	Gift.
Gogebic.....	Physiographic...	Gogebic County.....	1926	400	Will be developed for bathing, camping.	On Lake Gogebic contains splendid stand hardwood timber, rocky topography.	Gift.
Grand Haven.....	Physiographic...	1 mi. S. W. Grand Haven, Ottawa County.	1920	28	Bathing beach. Bathhouse Lake Michigan. Camping. Store in park.	One of most popular parks in Michigan. White sand beach. Ample parking space.	Gift.
Hanson Military Reserve.	Forested.....	On Portage Lake, Crawford County.	1913	15,000	Swimming. Camping.	In heart Michigan's wildest forest land.	Gift.
Harrisville.....	Forested.....	½ mi. S. Harrisville, Alcona County.	1920	12	Roads. Bathhouse. Bathing Lake Huron. Camping facilities.	Cedar grove on great Lake Huron..	Gift.
Hartwick Pines...	Forested.....	County of Crawford. 7 mi. N. E. Grayling.	1927	8,360	Undeveloped.....	Well wooded, containing 85 acres virgin white pine, only stand left in Lower Peninsula.	Gift.

* Resident superintendent twelve months.

STATE PARKS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Higgins Lake.....	Forested Scientific.	10 mi. S. W. Roscommon, Roscommon County.	1924	195	Swimming. Camp stoves, benches & tables. Road.	A beautiful wooded park on a picturesque lake, its water as clear as crystal.	Delinquent tax land.
P. H. Hoeft*.....	Scientific.....	3½ mi. N. Rogers City, Presque Isle County.	1920	320	Bathing. Pavilion. Concession stand. Camping.	Finest east shore sand dunes, densely wooded.	Gift.
Holland.....	Physiographic...	Near Park, Ottawa County.	1926	33	2,000 feet frontage on Great Lakes. Bath house.	An excellent location on Lake Michigan and Black Lake.	Gift and private donations.
Huron.....	Scientific.....	6½ mi. N. E. Cassville, Huron County.	1924	170	Undeveloped.....	Roads to this park are not developed.	Acquired from U. S. Govt. through Huron County.
Interlochen*.....	Forested.....	1 mi. S. Interlochen, Grand Traverse County.	1917	205	Restaurant conducted by Michigan State College. Swimming. Bathhouse. Camping.	Original growth white and Norway pine between Duck and Green Lakes.	Purchase.
Island Lake.* Dodge Bros. 1.	Physiographic...	2½ mi. E. Brighton, Livingston County.	1923	45	Boating. Bathing Island Lake. 60 boats. Concession stand in park. Camping.	Popular park, readily accessible....	Gift.

*Resident superintendent twelve months.

Lake City.....	Physiographic...	½ mi. N. W. Lake City, Missaukee County.	1923	20	Swimming Missaukee Lake. Bathing. Campstoves, tables & benches.	On Missaukee Lake "Where the North Begins."	Gift and private donations.
Mackinac Island[1]*	Historical and Forested.	Near Mackinaw City and Ft. Ignace.	1885	1,640	Boarding houses and hotels under concession. Land leased for summer homes. Bathing beaches. Golf courses. Trails. Drives. Boating. Fishing. No automobiles permitted.	Originally a military reservation, the old fort was built by the British in 1780. Figured in many incidents of early frontier life. Area of great natural beauty set in three great lakes. Well wooded with deep forests.	Transfer from U. S. Government and by purchase.
Magnus.....	Physiographic...	Petoskey City, Emmet County.	1921	28	Swimming Little Traverse Bay. Camp grounds.	In a popular scenic location.....	Gift.
Mason County....	Scientific and Forested.	Between Lake Michigan and Hamlin Lake.	1926	799	Will be well developed for recreation.	Original growth white and Norway pine. Moving sand dunes.	Transfer U. S. Department Commerce.
Marquette.....	Forested.....	5 mi. N. W. Marquette, Marquette County.	1923	137	Camp grounds, stoves, tables and benches.	Densely wooded area in heart Upper Peninsula and Iron County.	Gift.
Charles Mears....	Physiographic...	Pentwater Village, Oceana County.	1920	15	Swimming - beach. Lake Michigan. Bath-house. Camp facilities.	Contains some of Great Lake Michigan's best bathing beaches.	Gift.
Wm. Mitchell....	Forested.....	2½ mi. W. Cadillac, Wexford County.	1920	121	Fishing. Boating. Bathing Lakes Michigan and Cadillac. Camp ground. Pavilion. Store in park.	Popular place for fishing. Park on Lakes Mitchell and Cadillac.	Gift.

[1] Administration Mackinac Island State Park Commission.
*Resident superintendent twelve months.

STATE PARKS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Muskegon*.....	Scientific and Forested.	7 mi. W. Muskegon, Muskegon County.	1923	1,000	Undeveloped. Road shelter house in process construction.	Densely wooded. Famous West Michigan sand dunes.	Gift and part purchase.
Oceana County...	Scientific.....	Oceana County between Lake Michigan and Silver Lake	1926	1,184	Will be well developed for recreation.	One spectacular and impressive moving sand dune.	Transfer from U. S. Dept. Commerce.
Onaway*.....	Forested.....	6 mi. N. Onaway, Presque Isle County.	1920	150	Bathing. Fishing on Black Lake. Camp grounds. Bathhouse. Store in park.	Splendidly treed with deciduous and evergreen trees, rich in Indian lore and relics.	Gift and private donations.
Orchard Beach*...	Scientific, physiographic.	2 mi. N. Manistee, Manistee County.	1921	26	Bathing Lake Michigan.	Park overlooking Lake Michigan...	Gift.
Otsego Lake.....	Forested.....	7 mi. S. Gaylord, Otsego County.	1921	52	Fishing. Boating, Bathing, Otsego Lake. Bathhouse. Camp stoves, benches and tables.	Southern Michigan's highest altitude reached in this vicinity.	Gift.
Silver Lake.....	Scientific.....	7 mi. W. Hart, Oceana County.	1920	25	Swimming in Silver Lake. Camp stoves, benches and tables.	Amidst Michigan's most interesting sand dunes.	Gift.
St. Clair.....	Forested.....	12 mi. N. Port Huron St. Clair County.	1924	18	Bathhouse. Bathing Lake Huron. Store concession. Camp stoves, benches and tables.	Densely wooded. A refuge for boats sailing Great Lake Huron.	Gift.

*Resident superintendent twelve months.

Straits.....	Forested.....	¾ mi. S. St. Ignace, Mackinac County.	1924	45	Road. Swimming, Camping area.	Densely wooded area on famous Mackinac Straits.	Gift.
Traverse City....	Forested.....	2 mi. N. E. Traverse City, Grand Traverse County.	1920	16	Bathing on Grand Traverse Bay. Bathhouse. Store in park. Camping facilities.	Grand Traverse region contains many beauties and points of interest easily accessible from this park.	Gift.
Van Buren.....	Scientific and Forested.	9 mi. S. W. South Haven, Van Buren County.	1923	107	Roads. Swimming. Wells. Camping stoves, tables and benches.	Lake Michigan's dunes covered with mature beech and maple.	Gift and delinquent tax land.
J. W. Wells*.....	Physiographic...	¼ mi. S. W. Cedar River, Menominee County.	1925	475	Undeveloped. Over two mi. frontage on Green Bay.	Sand and rock beach. Densely wooded area, rugged and rocky.	Gift.
White Cloud.....	Forested.....	¼ mi. W. White Cloud, Newaygo County.	1920	105	Excellent oak grove camp ground.	An oak grove with flowing mineral well water.	Gift.
Wilson.....	Forested.....	1 mi. N. Harrison, Clare County.	1922	32	Well wooded camp ground. Bathing. Bathhouse. Concession stand. Roads.	A well wooded site on a highway ...	Gift.
Young.....	Forested.....	1½ mi. N. Boyne City, Charlevoix County.	1920	200	Fishing, Bathing in Pine Lake. Bathhouse Board Walk. Concession stand. Road.	Densely wooded on Lake Charlevoix.	Gift.

*Resident superintendent twelve months.

STATE PARKS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Michillimackinac[1]*	Historical.....	Within Mackinaw City.	1885	25	Camp, stoves, auto camp. Picnic playground.	At northern point of the Lower Peninsula and on Mackinaw Straits.	Transfer from U. S. Govt.
Sidnaw.....	Forested.....	4½ mi. W. Sidnaw...	1926	320	Undeveloped.....	A typical section of Western Upper Peninsula.	Gift.
Wilderness*.....	Forested.....	8 mi. W. Mackinaw City.	1927	5,400	Undeveloped.....	In Mackinaw Straits at extreme north end of Lower Michigan, where all highways converge.	Delinquent tax land, part purchase.
Pere Marquette River No. 1.	Forested, Physiographic.	Within City of Scottville.	1927	33	Undeveloped.....	On a river well known for its exceptionally good fishing.	Gift.
Pere Marquette River No. 2.	Physiographic.	2 mi. S. E. Scottville..	1927	12	Undeveloped.....	On a river well known for its exceptionally good fishing.	Gift.
Pere Marquette River No. 3.	Physiographic, Forested.	3 mi. S. E. Scottville..	1927	77	Undeveloped.....	On a river well known for its exceptionally good fishing.	Gift.
Pere Marquette River No. 4.	Forested, Physiographic.	4½ mi. S. E. Scottville.	1927	189	Undeveloped.....	On a river well known for its exceptionally good fishing.	Gift.

[1] Administration Mackinac Island State Park Commission.
*Resident superintendent twelve months.

STATE FORESTS
Department of Conservation

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Higgins Lake*.....	In Roscommon and Crawford counties.	1903	15,669	No specific recreational development, but camping, hunting, and fishing are not prohibited on any forest.	Plantations established 8,013 acres. State nursery from which stock for all reforestation projects is supplied.	All forests acquired under Tax Homestead Law
Houghton Lake*...	S. W. Corner Roscommon County.	1903	43,255		Area restocked, 5,700 acres.....	
Fife Lake*.....	S. E. Corner Grand Traverse County.	1913	8,996		Plantation established, 6,530 acres.....	
Ogemaw Forest*....	N. of West Branch, Ogemaw County.	1914	21,428		Plantations set total 4,679 acres.....	
Presque Isle*.....	Presque Isle, Montmorency and Cheboygan counties.	1915	22,386		Reforested area of 7,005 acres.....	
Alpena*.....	1 mi. from Alpena.....	1916	14,000		Plantations established numbering 2,782 acres.	
Pigeon River*.....	Otsego County.....	1919	6,628		Plantations established covering 3,985 acres.	
Black Lake*.....	Cheboygan and Otsego counties....	1927	9,209		.....	

* Resident superintendents.

Game Preserves

Department of Conservation

Name	Location	Date created	Area, acres	Recreational development	Game on refuge	Method of acquisition
Midland	Sanford, Midland County	1920	2,000	Managed in cooperation with Izaak Walton League.	Deer, grouse, wild ducks	Tax delinquency & purchase.
Gladwin	N. Skeels, Gladwin County	1922	5,000	Public hunting grounds.	Native grayling. Deer, bear, grouse.	Tax delinquency & purchase.
Emmett	Carp Lake, Emmett County	1922	5,000	Wilderness Park and wild life sanctuary.	Deer, small game, fur-bearing animals, grouse, waterfowl.	Tax delinquency & purchase.
Iosco	Oscoda, Iosco County	1924	6,700	Public hunting grounds.	Deer, bear, grouse	Tax delinquency & purchase.
Otsego	E. Vanderbilt, Otsego County	1924	10,000	Public hunting grounds.	Elk imported & released. Deer, bear, small game fur-bearing animals, grouse. Waterfowl.	Tax delinquency & purchase.
Montmorency	Lewiston & Atlanta, Montmorency County.	1926	4,700	Public hunting grounds.	Deer, bear, grouse	Tax delinquency & purchase.
Ogemaw	N. West Branch, Ogemaw County.	1926	5,000	Public hunting grounds.	Deer, bear, grouse	Tax delinquency & purchase.

MINNESOTA

STATE PARKS

Under Department of Conservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Alexander Ramsey..	Physiographic	Redwood Falls, Redwood County.	1911	120	Includes drives, trails, camp grounds with all necessary equipment, playgrounds, electric lights, piped spring water, girl scout cabin, golf course adjoining.	Picturesque gorge scenery, rock cliffs, waterfalls, on Redwood River and Ramsey Creek.	Purchase.
Fort Ridgely.....	Historical....	Northwest corner, Nicollet County.	1911	155	Camping and outdoor sports.	Site of old Fort Ridgely, location of battle in Sioux uprising. Spot of great natural beauty on commanding bluff overlooking Minnesota Valley. Unusual possibilities for development.	Purchase.
Garvin Heights.....	Physiographic	Winona, Winona County.	1922	15	Developed only for view.	This park is on the top of a commanding bluff overlooking the City of Winona and the Miss. Valley.	Gift.
Horace Austin.....	Physiographic	Austin, Mower County.	1913	50	Camp grounds, bath houses, bathing beach, playground paraphernalia.	Is located in the center of the City of Austin, a prosperous little Minnesota town. Its principal use is for the people of Austin and the surrounding territory.	Gift.

STATE PARKS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Inter-State.....	Scientific.....	Taylors Falls, Chisago County.	1895	150	Roads, trails, camp grounds, cottages, rest-rooms, motor boats.	Contains some of the most unusual geological formations in the country. Is just across the St. Croix River from St. Croix Falls where is located a 580 acre Wisconsin park.	Purchase.
Itasca.....	Forested.....	Where Becker, Hubbard and Clearwater counties join.	1891	34,469.73	Hotel, cabins, club house, restaurant, campgrounds, motor-boating, fishing, forestry school, roads and trails.	Location of Itasca Lake headwaters of the Mississippi, and other beautiful lakes. It is nearly 50 square miles of primeval forest in which live all kinds of wild animals and specimens of different forms of tree and plant life found in the n. part of the continent.	Federal grant, gift and purchase.
Jay Cooke.....	Forested.....	S. W. of Duluth, Carlton County.	1915	620 2/3	Camp grounds, baseball diamonds, fishing, drives and trails.	A wild, rugged and wooded area lying along the St. Louis River.	Gift.
Lake Bemidji.....	Forested.....	North and east shores of Lake Bemidji, Beltrami County.	1923	205	None.....	Beautiful stands of Norway pine.	Purchase. By condemnation.
Minneopa.....	Physiographic	Southwest of Mankato, Blue Earth County.	1905	114	Camp grounds, playgrounds, pavilion, playground paraphernalia, camp ground equipment.	Deep gorges, high, beautifully wooded hills, beautiful little stream and waterfall.	Purchase.

Minnesota Scenic...	Physiographic	Northwest of Winona, Winona County.	1925	350	None.....	Beautiful bluffs overlooking Mississippi River.	Gift.
Pipestone.....	Historical....	Near Pipestone, Pipestone County.	1923	.....	Swimming pool and playgrounds	Part of the Indian Reservation, including pipestone quarries, springs, bluffs and a waterfall. Little used for park; title is still in Federal Government.	None.
Scenic.....	Forested.....	Southeast of Bigfork, Itasca County.	1921	1,632	Camp grounds, trails, roads, cabins, boating, fishing.	Includes Sandwick, Coon and other lakes and some beautiful virgin pine.	Setting aside state-owned land & purchase.
Sibley.....	Physiographic	Shores of Lake Andrew, Kandiyohi County.	1919	355	Camp grounds.....	Beautiful rolling country.....	Purchase.
Sleepy Eye Lake....	Physiographic	Sleepy Eye, Brown County.	1921	5	Camp grounds with equipment, electric lights, bathing.	Park near center of Sleepy Eye, fronting on Sleepy Eye Lake.	Gift.
Toqua Lakes.....	Physiographic	Graceville, Big Stone County.	1919	40	Camp grounds, picnic grounds with necessary equipment.	Just across a beautiful lake from Village of Toqua Lakes.	Purchase.
Whitewater.....	Physiographic	North of St. Charles, Winona County.	1919	.....	Roads, trails, pavilions, camping equipment, bathing beaches, boy scout cabin, American Legion cabin.	Beautiful bluffs, streams, springs, rapids, unusual timber and considerable wild life.	Gift and purchase.

State Monument Sites

Department of Conservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Birch Coulie.....	Historical.....	Near Morton, Renville County.	1895	8	None.....	Site of a battlefield of the Sioux Uprising.	Purchase.
Camp Release.....	Historical....	Near Montevideo, Lac qui Parle Co.	1889	12	None.....	Commemorates release to Gen. Sibley of prisoners taken captives by the Indians in Sioux Uprising.	Purchase.
Traverse des Sioux..	Historical....	North of St. Peter, Nicollet County.	1896	2¼	None.....	Site of signing of treaty of 1851..	Purchase.
Wood Lake.....	Historical....	Near Granite Falls, Yellow Medicine County.	1907	1	None.....	Site of the final decisive battle of the Sioux War.	Purchase.

State Forests

State Forest Service, Department of Conservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Burntside	Forested and physiographic.	10 mi. W. Ely	1904	20,000	Camp grounds. Summer-home sites. Boat houses. Restaurant. Road. Trails. Fishing.	Great wealth in mature timber and second growth. Noted canoe route passes through the forest, which contains 43 lakes, all connected.	State lands and U. S. grant.
Itasca (See State Parks).							
State Forest	Forested and physiographic.	St. Louis, Lake and Cook counties and Cass, Beltrami, and Itasca counties.	1917 and 1927	350,000 435,000 85,000	Camp grounds. Summer home sites. $10 to $15 yearly. Boat houses. Restaurant. Road. Trails. Bathhouse.	Great wealth in mature timber and second growth. Fine combination canoe country, many lakes and forest scenery. 1927 addition lies within Minnesota National Forest.	State lands and U. S. grant.
Pillsbury	Forested	Near Gull Lake, Cass County.	1899	1,000	None	Scattered tracts. Fires have retarded reproduction. Growth scrubby poplar and birch. Small nursery Norway and white pine and white and Norway spruce planted.	Gift.

MISSOURI

STATE PARKS

Fish and Game Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Alley Spring....	Scientific.....	18 mi. N. Birch Tree, Shannon County.	1925	427	Trout fishing. Camp grounds. Road. Beach Bathhouse. Store. Hotel.	Remarkable spring, average flow 55,000,000 gallons per day. Rugged bluffs. Cave with grotesque formations.	$31,500.00
Arrow Rock.....	Historical and Forested.	Saline County.....	1926	30	Camp grounds. Tavern operated by D. A. R.	Part original Santa Fe Trail. Old business mart. Canyon with many varieties trees.	$5,000.00
Big Spring.....	Scientific.....	5 mi. S. Van Buren, Carter County.	1925	4,946	Scenic drives. Bridle path. Swimming. Fishing. Camp ground. Bathhouse. Concession stand.	State's largest spring. Daily flow over 300,000,000 gallons, gushing from foot picturesque limestone cliffs 500 feet high. Game preserve.	$22,589.00
Deer Run.....	Physiographic...	2 mi. Ellington, Reynolds County.	1925	6,160	Fishing. Swimming. Camp grounds.	Rugged hills and valleys thickly covered with young pine trees. Game preserve.	$19,700.00
Franklin County.	Scientific.....	Near Sullivan. S. E. Franklin County	1926	6,874	Fishing, swimming. Camp ground.	Gorge of Meramec River—rich in remarkable caves with amazingly beautiful and unusual formations. Game Preserve.	$110,859.00
Indian Trail.....	Physiographic...	15 mi. N. Salem, Dent County.	1925	13,253	Fishing. Road. Camp ground.	Rugged topography with creeks and streams. Game refuge.	$59,333.00

Mark Twain....	Historical and Physiographic.	28 mi. E. Paris, Monroe County.	1925	100	Fishing, Bathing, Camping. Refreshment stand. Road. Trails.	The birthplace of Samuel Clemens (Mark Twain). Beautiful bluffs overlooking the Salt River.	$5,000.00
Montauk.....	Scientific and Physiographic	21 mi. S. W. Salem, Dent County.	1926	754	Fishing. Road. Camp grounds. Hotel.	Famous spring, 40,000,000 gallons per day flow, constitutes head of Current River. Rugged topography—stately pines.	$29,400.00
Niangua Spring..	Scientific.....	12 mi. W. Lebanon, Laclede & Dallas counties.	1925	574	Fishing, Camp grounds. Hotel. Trails. Swimming pool. Store. Post Office.	Large spring (70,000,000 gal. flow per day) forming a veritable river. Empties into Niangua River. Fish Hatchery.	$40,000.00
Round Spring...	Scientific.....	14 mi. N. Eminence, Shannon County.	1925	77	Fishing. Store, Camp ground. Bathing-bath-house. Floater's camp.	Limestone cliff 30 feet high surrounds spring in form of huge bowl, water gushing from bottom through a fissure flows under a natural bridge.	$5,000.00
Sam A. Baker....	Physiographic...	3 mi. N. Patterson, Wayne County.	1926	3,485	Fishing, Trails, Camp Grounds.	Set in deep rugged gorge with cliffs rising 550 feet, dashing falls and deep pools. Game Refuge.	$20,553.00
Sequiota.....	Scientific.....	6 mi. S. E. Springfield, Greene County.	1925	15	Camp grounds. Boat trip through cave.	Fish hatchery. Remarkable cave containing lake of water, along whose banks stalagmites drop from roof in many weird shapes.	$23,700.00

MONTANA

STATE FORESTS

State Forester

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Stillwater	Forested	N. of Kalispell	Mar. 25, 1925	90,000	None, but open to hunting, fishing, and all forms of recreation.	Located within the Rocky Mountains of western Montana. Containing valuable stands of white pine, larch, yellow pine, spruce. Douglas fir and lodgepole pine. These forests contain many game animals. Deer, elk, moose, mountain sheep and goats. Good mountain trout fishing in the streams.	U. S. Land Grant.
Swan River	Forested	S.E. of Kalispell		42,000			
Coal Creek	Forested	N. of Kalispell		20,000			
Sula	Forested	S. of Missoula		10,000			
Scattered State Forests Section.	Forested	Over western part of State.		297,000			
Thompson River	Forested	N.W. of Missoula		14,628			
Clearwater	Forested	N.E. of Missoula		18,076			
Lincoln	Forested	N.W. of Helena		8,245			

NEBRASKA

STATE PARKS

Nebraska State Park Board

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Arbor Lodge.....	Historical....	Nebraska City, Otoe County.	1923	65	Picnic conveniences..	Homestead of late J. Sterling Morton, originator of Arbor Day. Contains the Morton Memorial. Log cabin erected in 1890 as memorial to old settlers. Grove of white pine planted in 1892. Splendid arboretum. Historical museum.	Gift.
Chadron*.....	Geological & physiographic.	9 mi. S. Chadron, Dawes County.	1921	640	Camping facilities. Boating. Swimming. Baseball field. Refreshment stands. Ice skating in winter.	In wooded Pine Ridge region of northwestern Nebraska, with rugged crags, weird natural rock formations, beautiful meadows, and stately pine trees.	School land set aside by Legislature.
Stolley.....	Historical.....	1 mi. S.W. Grand Island, Hall County.	1927	43	Picnic conveniences.	Homestead William Stolley, early pioneer of central Nebraska. A part of old "Fort Independence" in its original state. Artificial forest.	Gift.
Victoria Springs*....	Physiographic.	20 mi. N.W. Broken Bow, Custer County.	1923	60	Excellent camping facilities. Boating. Swimming. Athletic field. (1928)	Mineral springs, a splendid grove, and 2 log cabins built in 1873. Lake and bass nursery.	Gift.

*Superintendent.

RECREATION GROUNDS

Bureau of Game and Fish. Department of Agriculture.

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Goose Lake.....	Holt County.....	1925	300	Camping. Fishing. Hunting.	Sand Hill Lake, planted with trees...	Not available.
Wallgreen Lake...	Sheridan County.....	1925	120	Camping. Fishing. Hunting.	Well developed camping site, planted to trees.	
Rat and Beaver Lakes.	Cherry County.....	1925	280	Camping. Fishing. Hunting.	Sand Hill Lakes, well stocked with bass, perch and sunfish.	
Fremont Lakes....	Dodge County.....	1926	165	Fishing. Camping..	Sand Pit Lakes. Eight Lakes. Well stocked with bass and crappies.	

Game Preserves

Bureau of Game and Fish. Department of Agriculture.

Name	Location	Date created	Area, acres	Game on refuge	Method of acquisition
State Reserve	Lincoln County	1926	15,000	Game and Bird Refuge	Not available.
	Nebraska City	1926	3,500		
	Superior	1927	2,209		
	Valparaiso	1921	960		
	Lancaster County	1927	3,600		
	Ashland, Sarpy County	1928	500		

NEW HAMPSHIRE

STATE FORESTS

Forestry Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Miller Park	Physiographic & Forested.	Peterboro	1891	3	None	Mountain summit	Gift.
Cathedral & White Horse Ledges.	Physiographic	Conway	1901	118	None	Unusual rock formation	Gift.
Monadnock	Forested	Jaffrey	1915	493	Road built to parking & camping place. Shelters & running water provided.	Pine and spruce forest. Excellent trails.	Gift.
Haven	Forested	Jaffrey	1908	95	Good trails	Fine stand of pine	Gift.
Harriman-Chandler.	Forested	Warner	1911	405	None	Valuable plantations	Gift.
Crawford Notch	Forested	Hart's Location	1913	5,925	Restaurant. Cabins available. Concessionaire J. J. Donahue of Bartlett. Prices regulated by Forest Commission. Free camp available.	One of the famous gateways in the White Mountains. Named for Ethan Allen Crawford, one of first settlers in region. Splendid stretch forested. Mountains, valleys and slopes.	$68,000.
Merriman	Forested	Bartlett	1913	530	Good trail	Forest of Red Pine	Gift & $150.
State Nursery		Boscawen	1914	257	None	Contains 7,500,000 forest trees sold at cost to people of New Hampshire.	$3,780.

Huckins	Forested	Ossipee	1914	100	None	Demonstration tract	Gift.
Everett	Forested	Dunbarton	1915	56	Trails	Pine plantations	$682.00.
Walker	Physiographic	Concord	1915	47	Picnic grounds	Experimental area	Gift.
Davisville		Warner	1915	32	None	Scotch Pine plantation	$125.00.
Alton Bay	Forested	Alton	1915	209	Picnic grounds	Valuable hardwoods	$522.50.
Mast Yard	Forested	Hopkinton	1915–1920	400	None	Plantation demonstration area	$2,239.00.
Sentinel Mountain.	Forested	Piermont	1915	143	Trails	Valuable plantation	$712.50.
Livermore Falls	Forested	Campton	1916	134	Trails	White & Red Pine plantation	$910.00.
Blue Job		Farmington	1916	99	Camp site	Valuable plantation	$700.00.
Mascoma	Forested	Canaan	1916	174	None	Valuable young growth	$700.00.
Litchfield	Forested	Litchfield	1916	122	None	Pine plantations	$325.00.
Salmon Falls	Forested	Rochester	1916	20	None	Pine plantations	$60.00.
Bear Brook	Forested	Allenstown	1916	413	Trails	Pine plantations	$1,000.00.
Sugar Hill	Forested	Bristol	1917	57	None	Valuable hardwoods	Gift.
Kearsarge	Forested	Wilmot	1917–1919	839	Good trails	Lookout station on summit. Valuable plantations.	$6,396.50.
Jersey Hill	Physiographic	Pelham	1917–1918	63	None	Lookout station on summit	$825.00.
Cardigan Mountain.	Forested	Orange & Alexandria	1918–1924	2,700	Public shelters	Contains almost an entire mountain range from whose summit fine view of state is obtained. Lookout station on summit.	$9,450.00.

STATE FORESTS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Honey Brook	Forested	Marlow	1918 1921	825	Camp ground	Valuable spruce & hardwoods. Pine and spruce plantation.	$4,390.00
Stoddard	Forested	Stoddard	1918	71	None	Valuable mature growth	$325.00.
Dodge Brook	Forested	Lempster	1919	191	Camp ground	Pine plantation	$648.00.
Black Mountain	Forested	Haverhill	1919 1920	383	Good trails	Valuable pine and spruce	$877.52.
Scribner-Fellows	Forested	Ashland	1918	140	None	Valuable young growth	Gift.
Contoocook	Forested	Hopkinton	1920	30	None	Pine plantation	$120.
Nottingham	Forested	Nottingham	1920	16	None	Valuable young growth	$200.
Ponemah	Forested	Amherst	1920	63	None	Plantation	$378.
Craney Hill	Forested	Henniker	1920	31	None	Plantation	$124.
Taylor	Forested	Concord	1920	7	Permanent camp	Groves of birch, oak and pine	Gift.
Pillsbury	Forested	Washington	1920 1924	3,085	Fishing, hunting, free camp sites. Permanent camps $10 yearly. Cabin restored for use campers.	Area includes five large ponds forming headquarters of Ashuelot River. Hardwoods, spruce & fir. Resident caretaker.	Gift & $575.

Marshall	Forested	New Ipswich	1921	20	Free camp sites	Young growing pine and hardwood. Valuable demonstration area.	Gift.
Conway Common Lands	Forested	Conway	1916 1922	769	None	Spruce plantation	$1,412.
Beech	Forested	Keene	1921	21	None	Young growing pine, hemlock and hardwoods.	Gift.
Fox	Forested	Hillsboro	1922	328	Good Trails	Headquarters for experimental and demonstration forest. Bird sanctuary.	Gift.
Annett	Forested	Sharon & Rindge	1922 1923	1,092	Hunting. Camping.	Pine lands. Valuable young growth.	$4,000.
Green Mountain	Forested	Effingham	1922	15	None	Mixed growth, mature spruce. Lookout station on summit.	$200.
Glover	Forested	Pembroke	1922	7	None	Young hardwood	Gift.
Welton Falls	Forested	Alexandria	1923	188	None	Good hardwoods. Scattering spruce and hemlock. Beautiful waterfall; fine trails.	$1,000.
Pawtuckaway	Scientific	Nottingham	1923 1924	857	Permanent camps $10 yearly. Public camps.	Remarkable group of giant boulders, cliffs and caverns. Valuable timber.	$4,950.
Blair	Forested	Campton	1924	112	None	Young pine growth	$800.
Red Stone	Forested	Conway	1924	43	Public camp ground along highway.	Valuable young growth	$250.

STATE FORESTS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Grant	Forested	Fitzwilliam	1925	6	None	Young hardwoods	Gift of Charles H. Grant.
Pitcher Mountain	Physiographic.	Stoddard	1925	5	None	Donated for location, lookout station.	Gift of Harry Burnett.
Stevens	Forested	Nottingham	1925	4	None	Unusually large pines reserved from cutting.	Gift of the late Charlotte B. Stevens.
Sawyer	Forested	Jaffrey	1926	80	None	Adjoins Monadnock Forest. Mostly hardwood growth.	Gift of Etta M. and Ella M. Sawyer.
Suncook Tract	Forested	Loudon	1926	50	None	Young pine growth	$250.
Poole Tract	Forested	Jaffrey	1927	200	None	Hardwood growth	Gift.
Merrimack River	Forested	Boscawen	1927	151	None	Demonstration tract	$890.04.
Hubbard Hill	Forested	Charlestown	1927	691	None	Valuable young growth	$2,800.00.
Connecticut River	Forested	Charlestown	1927	235	None	Hardwood growth	$1,000.00.

NEW JERSEY

STATE PARKS

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Hacklebarney*[1]	Forested. Aesthetic & Recreation.	2 mi. S. Chester, Morris County.	1923	32	Picnicking; no camping permitted.	Stand of hardwoods and hemlock along picturesque gorge of Black River.	Gift, Adolph H. Borie.
High Point[2]	Physiographic	9 mi. Sussex	1922	10,600	Road. Boating. Fishing. Bathing. Free camp sites available. Trails. Golf.	Contains High Point, 1,823 feet and Lake Marcia, highest natural spring lake in New Jersey; craggy peaks, ponds, lakes, and waterfalls. Heavily wooded.	Gift of Colonel & Mrs. Anthony R. Kuser.
Swartswood*[1]	Lake & Groves Recreation.	7 mi. N. Newton, Sussex Country.	1915	567	Camp sites	544 acres of park is lake. 2 picnic groves and many approaches.	Purchase $20,000.
Washington Crossing*[1]	Historical & Recreation.	6 mi. above Trenton, Mercer County.	1923	237	Pincicking. No camping permitted.	Site of crossing Delaware River by Continental Army before battle of Trenton.	Purchase approximately $175,000.
Palisades Interstate[3] (See N. Y.).	Physiographic		1900	1,000	Camping. Bathhouses. Refreshment. 6 bathing beaches. Motor Boat basins. Trails. Road.	Splendid cliffs on West side Hudson	Gift purchase.

*Resident superintendent.
[1] Department of Conservation & Development, C. P. Wilber, State Forester, Trenton.
[2] High Point Park Commission, John J. Stanton, Secretary, Sussex.
[3] Palisades Interstate Park Commission, 25 Broadway, New York, N. Y.

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Bass River*.....	Forested. Pine, cedar, and hardwoods. (Coastal Plain.)	1 mi. N. New Gretna, Burlington County.	1905 to 1927 [1]	2,044	Fishing. Deer and game hunting. Free transient camp sites.	Typical of so-called "Pine Barrens." Many cedar swamps and experimental plantations. Much thinning area.	Purchase, $8,328.
Jackson*.....	Forested. Pine & hardwood. (Coastal Plain).	E. Cassville, Odeana County.	1915	43	Camping not permitted. Picnic spots available.	50-year forest. Much pure pine intended for demonstration purposes.	Purchase, $860.
Lebanon*.....	Forested. Pine, cedar, & hardwood (Coastal Plain).	9 mi. S. E. Pemberton, Burlington County.	1908 to 1927 [1]	6,920 [2]	Excellent hunting. Camp sites leased. Transient camp sites free.	Pine, oak, and cedar. Experimental plantations, thinnings, & logging.	Purchase, $41,182.
Mount Laurel*...	(Delaware Valley.) Forested. Pines & hardwood.	3 mi. S. E. Moorestown, Burlington County.	1908	21	Camping not permitted.	Plantations, thinnings.....	Purchase, $500.
Penn*.....	Forested. Pine & cedar (Coastal Plain).	5 mi. S. W. Chatsworth.	1910	2,764	Excellent deer & small game hunting. Camping free.	Typical of coastal plain "Pines" region.	Purchase, $14,500.
Stokes*.....	Forested. Hardwood. (Highlands).	3 mi. W. Branchville, Sussex County.	1907 to 1927 [1]	9,989	Permanent camp sites leased. Free public camp sites for transients. Fishing. Hunting. Trails. Roads. Group camps under lease.	Typical forest land North Jersey. Includes summits above 1,650 feet, excellent views. Demonstration areas.	Purchase, $59,066.

*Superintendent. [1] Acquisition actively going on at present. [2] Reduction due to transfer of an area for State Institution.

STATE GAME PRESERVES

Name	Location	Date created	Area, acres	Special characteristics	Method of acquisition
John S. Van Nest..	N. Mercerville & Hamilton. 2 tracts..	1925	98	For propagation game animals.....	Gift of John S. Van Nest.

NEW YORK

STATE PARKS

Commissioners of Niagara Reservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Niagara Reservation.	Scientific.....	At Niagara Falls.....	1885	509	Trails. Bus service. Numerous concessions such as steamboats, etc. Roads. Shelters. Camping not permitted on reservation.	First reservation in U. S. acquired by condemnation. Unique and conspicuous beyond comparison. Includes American side magnificent Niagara Falls, the Whirlpool, Goat Island, famous "Devil's Hole," a deep and beautiful chasm, and the Cave of the Winds.	$1,590,925.89

Allegany State Park Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Allegany State Park.	Physiographic...	32 mi. Jamestown, Cattaraugus County	1921	65,000	Fishing. Roads. Trails. Group camps. Cabins available. Swimming. Horseback. Museum. Store with complete camp supplies. Permanent camps. Tents from $1 to $1.25 per day, $5 to $6 per week. Cabins $2.50 per day, $12 per week. Trailer camps permitted.	In dissected Allegheny Plateau, with summit ridges averaging 2,400 feet and valleys 1,500 feet above sea. Splendid forest. Sections are game sanctuaries.	$25,000 gift and balance by purchase.
Cuba Reservation.	Physiographic...	Allegany and Cattaraugus counties .	1912	700	Cottage sites leased on 5 year term. Tenting not permitted.	500 acres in lake. Narrow strip of land surrounding same used for cottage sites.	Purchased by state early in 1858 for canal storage.

LETCHWORTH STATE PARK COMMISSION

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Letchworth.....	Physiographic...	Near Portage and Genesee Falls, Wyoming and Livingston counties.	1907	1,600	Road. Golf course. Hotel and restaurant. Stone library and museum. Boating. Fishing. Acquatic sports. Camping-floored tents with cots, 50 cents per day. Camp sites. Nursery. Arboretum.	Area of varied beauty, including famous Portage Falls, beautiful gorge with walls 250 to 300 feet above water.	Gift of William Payor Letchworth.

FINGER LAKES STATE PARKS COMMISSION

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Buttermilk Falls..	Physiographic and forested.	2½ mi. S. Ithaca.....	1924	350	Trails. Swimming pool. General supply store. Camp sites. Permits 50 cents per night.	Buttermilk Falls more than 500 feet in series rapids, cascades and waterfalls. Pinnacle Rock rises 40 feet center stream above a waterfall.	Gift of Mr. and Mrs. Robert H. Treman, Ithaca, N. Y.
Cayuga Lake.....	Physiographic...	3 mi. Seneca Falls and borders Cayuga Lake.	1928	250	In process of development.	Lake swimming, picnic and camping areas.	Purchase.

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Enfield Glen.....	Physiographic and forested.	7 mi. S. Ithaca.....	1920	850	Camp sites. Trails. Swimming pools. Fishing. Old Mill developed as a recreational center. Playground apparatus.	Beautiful glen with 12 waterfalls. Notable stand red pine. Lucifer Falls 115 feet high.	Gift of Mr. and Mrs. Robert H. Treman of Ithaca, N. Y.
Fair Haven Beach.	Forested.....	East of Little Sodus Bay on Lake Ontario.	1928	700	Excellent bathing beach. Camp sites.	Many acres of fine woodland. Game refuge.	Purchase.
Fillmore Glen....	Scientific and forested.	1 mi. south of village of Moravia.	1924	400	Camp sites. Trails. Swimming pool. Bowling green, playground apparatus.	Fillmore Glen stream flows over three miles limestone and shale, creating five waterfalls and many unique rock formations.	Purchase.
Stony Brook.....	Physiographic and forested.	3 mi. S. of Dansville..	1928	400	Camp sites. Trails. In process of development.	Picnic and camp sites. Trails, waterfalls, woodlands.	Purchase.
Taughannock Falls	Physiographic and forested.	10 mi. N. Ithaca and borders Cayuga Lake.	1924	400	Camp sites. Bathing beach. Trails. Drives. Tents available. Playground apparatus. Playfields.	Deep chasm from Cayuga Lake extends back 5,000 feet to main falls where Taughannock Falls drops 215 feet to a whirling pool in bottom of gorge. Well wooded.	Purchase.
Watkins Glen....	Scientific, physiographic and forested.	In village Watkins..	1900	500	Trails. Supply store. Picnicking. Wading pool.	Beautiful glen with drop of 700 feet. Numerous waterfalls, interesting rock formations and nineteen distinct waterfalls, cascades and grottos. Game refuge.	Purchase.

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Chittenango Falls.	Physiographic...	20 mi. from Syracuse.	1922	100	Camp sites. Fishing trails. Picnic grounds.	Beautiful rock gorge with 100 foot falls and beautiful plants.	Gift and purchase.
Clark Reservation.	Memorial and scientific.	4 mi. S. E. Syracuse..	1915	200	Trails. Camp sites. Picnic grounds.	Abandoned plunge basin of a cataract marking course river in glacial times. Memorial to former Governor Myron H. Clark. Rich in geological interest.	Gift.
Selkirk Beach....	Physiographic...	22 mi. Oswego. 40 mi. Syracuse.	1926	800	Picnicking. Fishing. Bathing. Camping.	Mile of Lake Ontario Beach.....	Purchase.
Gilbert Lake.....	Physiographic...	12 mi. N.W. Oneonta	1926	1,600	Camping. Bathing. Fishing.	.....	Purchase.
Green Lakes.....	Scientific.....	9 mi. Syracuse.....	1927	600	Picnic grounds. Bathing. Fishing. Trails.	Famous for geological aspects. Lakes were plunge basins of ages ago, when high glacial falls formed through melting of ice. Great depth, emerald green in color.	Purchase.
Lily Lakes.....	Scientific.....	11 mi. N. E. Binghamton.	1927	600	Picnicking. Bathing. Boating.	Exceptional example of glacial action. Lakes, ponds and streams.	Purchase.
Battle Island.....	Scientific and physiographic.	15 mi. W. Albany...	1914	225	Open camps. Albany Boys Camp.	On crest Helderberg escarpment. Beautiful scenery and interesting rock exposures and fossils.	Gift.

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Adirondack.....	Forested and physiographic.	N. E. New York City between Lake Champlain, Valley Black River and Mohawk Valley.	1885 to 1928	1,941,-404	Trails. Hunting. Fishing. Open log camps. Tent camps. Portable canvas house camps.	Includes highest mountain in state, Mt. Marcy, 5,334 feet, and McIntyre, 5,111 feet. Every form forest found in zone from dwarf alpine fir and spruce to heavy virgin spruce and pine. Cutting prohibited.	Tax sales, etc., purchase by appropriation and bond sales.
Catskill.....	Forested and physiographic.	Central portion Catskill Mtns. 100 mi. from N Y. C. in Greene, Delaware and Sullivan counties.	1885 to 1928	167,692	Canvas tents camping without permit short periods. Permits for open camps, wooden structures and tent camps. Hunting. Trails. Roads.	Northern boundary mountain face almost sheer precipice, high steep mountains, side valleys. Covered with hardwood forests and virgin spruce.	Tax sales, etc., purchase by appropriation and bond sales.
Lake George (included in Forest Preserve area).	Physiographic...	Near Lake George Village.	1923 to 1928	15,378	Many excellent camp sites. Boating. Fishing. Water sports.	One hundred fifty-five state-owned islands and islets in Lake George, set amid rugged, high mountains.	Through an English grant of islands & purchase.
Saratoga Springs..	Natural wonder.	Saratoga County....	1909	1,083	Three bathhouses, modern hydrotherapeutic treatment given. Water bottled. Hotel to be erected and other developments. Camping facilities.	Famous mineral springs—122 natural springs and wells. Tree nursery.	Purchase, special appropriation.

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
St. Lawrence Reservation.	Physiographic...	All River St. Lawrence within state, islands therein and Lake Ontario adjacent to Jefferson County.	1896	195	Camping. Picnicking. Pavilions and docks. Accessible by auto and boat.	Islands, part of St. Lawrence River, and portion Lake Ontario adjacent to Jefferson County.	Purchase, special appropriation.
Hearthstone.....	Forested.....	Near Bolton.....	1927	63	Public camp ground..	Magnificent stand of pines near Lake George.	Purchase
John Boyd Thatcher.	Scientifie and physiographic.	15 mi. W. Albany....	1914	405	Open camps. Albany Boys Camp.	On crest Helderberg escarpment, beautiful scenery and interesting rock exposures and fossils.	Gift.

Taconic State Park Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Taconic.....	Physiographic...	At Copoke Falls, Dutchess and Columbia counties.	1925	4,000 (to be 9,000)	Excellent camping facilities. Tents at 25 cents per day. Camping permit $2 per week. 2 wooden camps $4 per day each. Hunting. Bathing. Fishing.	Tri-state park on high plateau. Area of great beauty where Mass., N. Y. and Conn. meet, with elevation 2,000 to 2,650 feet. Three states will have 40,000 acres.	.....

Palisades Interstate Park Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Palisades Interstate.	Physiographic and scientific.	North to Newburgh, west to include Ramapo Mtns.	1900	47,000	Roads. Paths. Trails. Lakes. Beaches. Playgrounds. Picnic groves. Boats. Dance pavilion. Lunch room. Steamer and bus transportation. Group camps leased. Camp sites. Electric lights. Winter sports.	Includes a section of rugged Appalachian Range, with deep valleys covered hardwood forest and hemlock along the streams and cliffs. Palisades an immense basalt dyke which broke through sandstones and overflowed to the Hudson Gorge. Game refuge.	Gift and $2,900,000.

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Mohansic.....	Physiographic...	Yorktown.....	1922	1,100	Roads. Paths. Golf courses. Playgrounds. Camp grounds. Club house, reasonable rates.	Mohansic Lake, centrally located in park, is natural basin fed by deep, cold springs. This is purely a scenic feature—cannot be used for bathing and boating as its waters flow into Croton Reservoir, water supply of New York City.	Conveyed to county by State of N. Y. for $1.00.
Rye Beach and Mansuring Island.	Physiographic...	Rye.....	1923–1925	214	Bathing facilities. Boating. Also an amusement park, "Playland."	Finest salt water beach in Westchester County, also salt water lake for boating.	$4,100,000.
Croton Point.....	Physiographic...	Between Tappan Sea and Haverstraw Bay. Hudson River near Ossining.	1923	350	4 mi. beach. Bathing and boating facilities. Athletic fields. Playgrounds. Vacation camp for children of county.	Diversified area ranging from level meadows to wooded slopes and plateaus.	$475,000.
Tibbetts Brook...	Physiographic...	Yonkers.....	1923	153	Bathing and boating facilities. Skating. Playgrounds. Athletic and ball fields.	Valley with well wooded, rocky slopes.	$208,420.
Woodlands.....	Physiographic...	Ardsley.....	1923	212	Picnicking, baseball, football.	Scenic area around Woodlands Lake which is formed by an old mill dam with an attractive waterfall.	$434,000.
Glen Island.....	Physiographic...	New Rochelle, bridge nearly completed.	1923	107	Bathing facilities. Playgrounds, picnicking.	Beautiful wooded island in Long Island Sound.	$555,000.

WESTCHESTER COUNTY PARK COMMISSION*—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Silver Lake and connecting parkways.	Physiographic...	White Plains.....	1924	510	Picnicking.....	Rocky woodlands and lowlands along Mamaroneck River.	$1,940,000.
Kingsland Point...	Physiographic...	Hudson River near North Tarrytown.	1924	93	Bathing. Playground	Marshy area on both sides Pocantico River.	$475,000.
Cruger's.....	Physiographic...	Hudson River near Peekskill.	1924	267	Boy Scout Camp. Individual camps.	Partly wooded, and partly open fields. Picturesque shore line.	$125,000.
Poundridge Reservation.	Forested.....	20 mi. from White Plains.	1926	3,900	Paths. Stone fireplaces. Stone trail shelters, can be occupied one night. Camping.	Beautiful forest area.....	$500,000.
Saxon Woods.....	Forested.....	Near Mamaroneck...	1925	820	Wood roads. Bridle paths. Golf course.	Picturesque, rocky woodlands, including portion of Mamaroneck River and its tributaries.	$1,260,000.
Willson's Woods..	Physiographic...	Near Mt. Vernon....	1927	33	Outdoor swimming pool with modern filtration system. Bath house.	Picnic grove and playground.....	$238,000.

* Are not state-owned parks but county parks, but are included since Westchester County parks are considered part of New York's state park program.

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Deer Range.....	Physiographic...	On Nicholas Point in Great South Bay.	1925	1,470	Roads. Camp facilities. Nursery. Fresh water bathing. Boating.	Oak woods, salt meadows, and ranges for deer and pheasant. Game preserve.	Gift and purchase.
Fire Island.....	Physiographic...	On Great South Bay..	1925	800	Accessible by ferry. Docks. Bathhouses. Shelters. Large boat basin. Boardwalk. Rotary Club camp for crippled children.	Beach front four miles long.....	Ceded to state by Dept. of Commerce
Gardiners Point...	Physiographic...	Island north of Gardiners Point.	1927	14	Picnicking.....	Fort erected in 1898 to protect New York from invasion of Spanish fleet.	Purchase.
Montauk Point...	Physiographic...	On Montauk Peninsula.	1924	110	Camp facilities. Bathing. Scenic drives.	High bluff, kettle hole ponds, and white oak forest.	Purchase.
Belmont Lake....	Physiographic...	4 mi. N. Babylon...	1926	200	Bathing. Boating. Camping.	Lakes surrounded by sloping lawns.	Purchase.
Wildwood.....	Physiographic...	North shore of Long Island.	1926	385	Camp facilities. Group camps. Bathing. Boating.	Heavily wooded region. Virgin timber.	$75,000.
North Valley Stream, South Valley Stream.	.....	Valley Stream.....	1927	106	Bathing, boating, picnicking. Ice skating in winter.	Lakes, woods and fields.....	Purchase.
Hempstead Lake..	Physiographic...	Between Hempstead and Rockville Center.	1927	820	Picnicking. Bridle paths. Trails. Skating in winter.	Lakes, woods and fields.....	Purchase.

LONG ISLAND STATE PARK COMMISSION—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Meadowbrook	Physiographic...	Freeport.....	1927	425	Picnicking only.....	Wooded region.....	Purchase.
Jones Beach.....	Physiographic...	5 mi. from Wantagh..	1927	1,000	Ocean boulevard. Bathhouses. In process of development.	Four miles ocean front.....	Gift Hempstead and Oyster Bay.
Wantagh.....	Physiographic...	Near Wantagh.....	1927	200	In process development.	Wooded region.....	Purchase.
Massapequa.....	Physiographic...	Near Massapequa...	1927	560	In process development.	Wooded region.....	Purchase.
Hither Hills.....	Physiographic...	3 mi. W. Montauk...	1927	1,755	Surf bathing. Camping. Scenic drive. Tent site $2 per week. Picnicking.	Located on Montauk Peninsula, region resembles Cape Cod.	Purchase.
Sunken Meadow..	Physiographic...	Suffolk County.....	1927	280	Camping. Tents $2 per week. Bathing. Boating.	Stretch sandy beach.....	Purchase.
Gilgo Beach.....	Physiographic...	Near Amityville.....	1928	464	In process development.	Beach front.....	Purchase.

Erie County Park Commission

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Grand Island	Near Niagara	1927	400			

State Monuments

Finger Lakes Region

Name	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Newton Battlefield	5 mi. S. E. Elmira	1913	200	Site of battle between Gen. Sullivan and Indians and Tories in August, 1779.	Gift.
Squaw Island	Near Canandaigua		1	Interesting geologic formation illustrating process rock making by plant growth.	

Spy Island	Near Mexico Point	1903	1	Contains monument to Silas Town, an American Revolutionary officer.	Purchase.
Montcalm Park	Near Oswego	1913	2	Site of second fort built at Oswego, captured and destroyed by Montcalm in 1756.	Purchase.
Fort Brewerton	15 mi. N. Syracuse	1905	1	Well preserved remains of fort built in 1759.	Purchase.
Bennington Battlefield	Near Walloomsac	1913	171	Sites of battles of French and Indian and Revolutionary War.	Purchase.
Crown Point Reservation	Near Crown Point	1912	45	Site of battles of French and Indian and Revolutionary Wars.	Gift and purchase.
Lester Park	Near Saratoga Springs	1914	3	Cambrian limestone exposes reef of ancient marine plant, sliced by glacial period ice sheet.	Gift.
Stark's Knob	Near Schuylerville	1916	4	Site where Gen. John Stark mounted battery which blocked Burgoyne's retreat.	Gift.
Senate House	Near Kingston	1887	1	Eighteenth century structure once occupied by the State Senate.	Purchase.

Name	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Saratoga Battle	Schuylerville	1926	2	Site of Saratoga battle.	Purchase.
Lake George Battleground	Lake George	.....	35	Site of battles of French and Indian and Revolutionary Wars.	.....
Sir William Johnson Mansion	Johnstown	1896	18	Scene of Colonial and Revolutionary events.	Purchase.
Herkimer Home	Little Falls	1913	135	Home of Gen. Nicholas Herkimer of Revolutionary fame.	Purchase.
Guy Park House	Amsterdam	1917	5	War home of Sir Guy Park, nephew Sir William Johnson.	Purchase.
Schuyler Mansion	Albany	1911	2	Built in 1761 by Gen. Philip Schuyler	Purchase.
Fort Cralo	Rensselaer	1926	1	Said to be location at which "Yankee Doodle" was composed.	Gift.
Grant Cottage	Mt. McGregor	1896	1	Where Gen. U. S. Grant died in 1889	Gift.
		TACONIC REGION			
Clinton House	Poughkeepsie	.....	1	Erected in 1767—occupied as executive mansion by George Clinton, first Governor of New York.	.....

PALISADES REGION

Name	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Washington's Headquarters	Newburgh		7	Purchased in 1849. Occupied by Continental Army 1778–1783.	
Temple Hill	Newburgh		1	Occupied by Continental Army 1778–1783.	
Knox Headquarters	Newburgh		50	Occupied by Continental Army 1778–1783.	
Stony Point Reservation	Stony Point	1897	34	Scene of capture of British Post by Gen. Anthony Wayne in 1779.	Purchase and gift

AMERICAN SCENIC AND HISTORIC PRESERVATION SOCIETY

Philipse Manor Hall	Yonkers	1908	1	Memorial seat of Philipse family. Built 1682–1730.	Purchase and gift.
Andre Monument	25 mi. from New York City.	1908	1	Scene execution Major John Andre, British spy, 1780.	Purchase.
John William Draper Park	Hastings on Hudson	1924	9	Home of Dr. John William Draper	Gift.
Hamilton Grange	New York City	1924	46x100 ft.	Home of Alexander Hamilton built in 1802.	Gift.

GAME PRESERVES

Division of Fish and Game, Conservation Commission

Name	Location	Date created	Area, acres	Recreational development	Game on refuge	Method of acquisition
Curtis Refuge.....	Volney-Oswego County	1920	27	Hunting, trapping, and fishing permitted in certain sections at certain periods of the year.	Same as Sherburne.....	Gift.
Sherburne.....	Chenango County...	1916	155	None. Area surrounds game farm.	Raccoon, Canada geese, woodduck, black and mallard ducks, deer, teal, snipe, pheasants.	Act of Legislature.
Minerva.....	Essex County.....	1926	2,560	No hunting.....	Same as above.....	Refuge in township which was state land.
Pharsalia.....	Chenango County...	1928	2,000	No hunting.....	Same as above.....	Purchase at $15,000.

NORTH CAROLINA

State Parks

Department of Conservation and Development

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Fort Macon**...	Historical.....	Near Morehead & Beaufort.	1925	400	Excellent beach. Camping.	Brick and earthwork fort, built in 1835, sustained two days' bombardment General Bank's force in 1862. Game Preserve.	Transfer by act of Congress.
Mt. Mitchell*...	Physiographic...	Southern half Yancey County.	1915	1,200	Road. Restaurant under concession. Camping-tents & cots for rent.	Mt. Mitchell highest point in eastern part of U. S., 6,711 feet. Subalpine type forest fir and spruce. Game Preserve.	$20,000.
Rendezvous Mountain.	Historical.....	North Wilkesboro, Wilkes County.	1926	40	Used primarily as recreation park. Camping sites.	Gathering place of Continental troops before marching to battle, Kings Mountain. Heavily timbered, springs and creeks.	Gift.

** Warden on part time, during chief tourist season.
* Warden on ground.

State Forests

Department of Conservation and Development

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Finley State Forest.	Historical and Forested.	North Wilkesboro, Wilkes County.	1926	100	To be used primarily as demonstration forest. Camping sites.	Gathering place of Continental troops before marching to battle, Kings Mountain. Heavily timbered.	Gift.

NORTH DAKOTA

State Monuments

State Historical Society

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Camp Atchison	Historical	Griggs County	1923	½	Site of military camp, Sibley expedition, 1863	Gift.
Camp Kimball	Historical	Foster County	1924	⅛	Site of camp, Sibley expedition, 1863	Gift.
Fort Abercrombie	Historical	Rickland County	1908	6¼	First Federal fort in state, built in 1858	Donation.
Fort Abraham Lincoln	Historical	2 mi. S. Mandan, Morton County.	1916	75½	A portion of old Fort Abraham Lincoln Military Reservation.	Gift.
Fort Rice	Historical	Fort Rice, Morton County.	1915	9½	Fort built by General Sully as military base during Indian campaign in 1864. Includes Indian village.	Gift.
Fred Smith		Stutsman County	1922	2		Gift.
Homer	Historical	Stutsman County	1922	5	Site of military camp Sibley expedition, 1863	Gift.
J. S. Weiser	Historical	Barnes County	1923	4 sq. rds	Site of military camp Sibley expedition, 1863	Gift.
McPhails Butte	Historical	Kidder County	1923	½	Sibley trail 1863. Overlooks battlefield, Big Mound.	Gift.
Pembina	Historical	City of Pembina	1916	3½	First trading post in North Dakota, built in 1797	Gift.
Streeter	Memorial	Kidder County	1922	63	War memorial to service men of Streeter	Gift.
Burman	Historical	Kidder County	1923	2 sq. rds	Site where J. S. Weiser was killed by Indians in 1863.	Gift.

STATE MONUMENTS—*Continued*

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Chaska	Memorial historicll	Kidder County	1923	2 sq. rds.	The grave of Chaska, Gen. Sibley's Dakota scout.	Gift.
Hunting Lodge		Butte, Dunn County	....	.....	Not yet secured	Gift.
Port Berthold	Historical	.....	....	40	Site of ancient Hidasta village	.....
Walhalla	Historical	.....	1908	.....	Site of early trading posts	Donation.
Arikara Indian Village.	Historical	Morton County	1908	6	Site of an early Arikara Indian Village	Purchase.
Camp Corning	Historical	Barnes County	1925	¼	On Sibley Trail, crossing Cheyenne River	Gift.
Fort Dilts	Historical	Bowman County	1925	23	Site where immigrant train besieged by Dakota Indians in 1864.	Gift.
Doyle Memorial	Memorial	McIntosh	1928	21.2	.....	Gift.
Ft. Seward	Historical	Stutsman	1928	3.5	Site of old Ft. Seward, 1870	Gift.
Arrowood	Historical	Stutsman	1928	62	Natural park and community center	Gift.
Strong	Memorial	Sargent	1928	2	Memorial to service men in Great War	Gift.
Birch Creek	Historical	Barnes	1928	2 rds.	Sibley Camp, 1863	Gift.
Camp Sheardown	Historical	Barnes	1928	2 rds.	Sibley Camp, 1863	Gift.

OHIO

State Parks

Department of Public Works

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Buckeye Lake....	Physiographic...	20 mi. E. Columbus, Licking, Perry and Fairfield counties.	1902 Built about 1830	4,000	500 cottages along shore leased for 15 year annual rental, $24 to $300. Fishing. Boating. Bathing.	Marginal strip around state-owned lake reservoir.	Act General Assembly.
Guilford Lake....	Physiographic...	Hanover Township, Columbiana County.	1927	500	Still under construction. Will be opened for 1929 season.	?	$32,500.
Indian Lake.....	Physiographic...	N. W. Bellefontaine, Logan County.	1902 Built 1858	6,300	Bathing, boating, fishing.	Strip around lake reservoir, containing many islands. Game refuge.	Act General Assembly.
Lake St. Marys...	Physiographic...	Mercer and Anglaise counties.	1902 Built 1841	15,500	Bathing beach. Drives. Board walk under concession. Fishing. Motor boats under concession. Cottages leased. Camping. Electric city.	Marginal strip around lake reservoir. Game refuge.	Act General Assembly.
Loramie Lake....	Physiographic...	6 mi. S. St. Marys Lake. Shelby and Anglaise counties.	1902 Built 1844	1,950	Fishing, several hotels, very few cottages. Still undeveloped.	Marginal strip around lake, several islands. Game refuge.	Act General Assembly.
Portage Lakes....	Physiographic...	5 mi. S. Akron, Summit County.	1902 Built 1844 to 1910	2,250	Fishing, water sports. Canoes used mostly for transportation. Good roads.	Series of small lakes. Marginal strip around lakes.	Act General Assembly.

Historical Parks

Ohio Archaeological Society

Name	Type	Location	Date created	Acres	Special characteristics	Method of acquisition
Battlefield of Fallen Timbers.	Historical.....	Near Perrysburg, Lucas County.	1921	4.08	Site of battlefield where General Anthony Wayne defeated the Indians on Aug. 20, 1794.	Presented by Clarissa Cook Moor.
Big Bottom Park.....	Historical.....	1½ miles southeast of Stockport, Morgan County.	1905	2	The site of a settlement and blockhouse along the Muskingum, where the settlers were surprised by the Indians, Jan. 2, 1791.	Presented by Obadiah Brokaw.
Campus Martius.....	Historical.....	Within city of Marietta, Washington County.	1917	.....	The fortified home of the Ohio Company at the confluence of the Muskingum and the Ohio on the site of the present city of Marietta—the first permanent white settlement in Ohio.	Purchase.
Felix Renick Monument.	Historical.....	4 miles south of Chillicothe, Ross County.	1922	A few sq. rods	Erected to the memory of Felix Renick and the Ohio Importing Company who brought the first full blooded short-horned cattle to America.	Gift.
Fort Amanda.....	Historical.....	1 mile north of Buckland, Auglaize County.	1914	10.32	Erected in 1812 by Col. Thomas Pogue of General Harrison's army.	Purchase.
Fort Ancient.....	Archaeological...	Near village of Fort Ancient, Warren County.	1890–1908	310	Probably the greatest prehistoric defensive earth-work in the world. The walls are about 3½ miles long and at places attain the height of 15 feet.	Purchase.

Fort Laurens.....	Historical.....	About 1 mile south of Bolivar, Tuscarawas County.	1917	30	The site of the first fort built by white soldiers in the state of Ohio. Erected in 1778 and used during the Revolution.	Purchase.
Fort St. Clair.....	Historical.....	1 mile west of Eaton, Preble County.	1923	77	Erected by the army of General St. Clair as one of a chain of forts along the western boundary of Ohio.	Purchase.
George Rogers Clark Monument.	Historical.....	5 miles west of Springfield, Clark County—1½ miles south of National Highway.	1924	¼	A large granite shaft erected to the memory of General Clark and his army of Kentuckians who defeated the Indians at the battle of Piqua on Aug. 8, 1780.	Gift.
Logan Elm Park.....	Historical.....	7 miles south of Circleville, Pickaway County.	1912	5	The Logan Elm, at or near the site where Logan delivered his memorable address is thought to be the oldest living thing in Ohio today.	Presented by Miss Elizabeth Ruggles.
Miamisburg Mound....	Archaeological...	1 mile southeast of Miamisburg, Montgomery County.	1920	2	The largest conical mound in the state of Ohio. It is 68 feet high and more than 800 feet in circumference.	Presented by Mr. C. F. Kettering, Dayton.
Mound City Park.....	Archaeological...	1 mile north of Chillicothe, Ross County.	1924	57	The site of one of the most important prehistoric mound groups in the state of Ohio and the Mississippi Valley.	Gift by War Department.
Schoenbrunn Park.....	Historical.....	1½ miles southeast of New Philadelphia, Tuscarawas County.	1923	130	The site of the ancient village of Schoenbrunne (Beautiful Spring), where Heckewelder and Zeisberger gained many converts among the Indians.	Purchase.

HISTORICAL PARKS—*Continued*

Name	Type	Location	Date created	Acres	Special characteristics	Method of acquisition
Serpent Mound Park...	Archaeological...	4 miles northwest of Locust Grove, Adams County.	1900	70	Pronounced the greatest effigy earthwork on the North American continent, if not in the world. The huge serpent which coils along the crest of a high ridge, is about 1,335 feet long, varies from 4 to 6 feet in height and from 5 to 20 feet in width.	Gift by trustees of Peabody Museum.
Seip Mound Park.....	Archaeological...	1 mile east of Bainbridge, Ross County. Near Ohio-U. S. Route 50.	1927	10	.....	Purchase.
Spiegel Grove Park.....	Historical.....	Fremont, Sandusky County...	1909	25	The former home of President and Mrs. Rutherford B. Hayes, at Fremont, Ohio.	Presented by heirs of President Hayes.

State Forest Parks
State Forestry Department

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Bryan Park.....	Physiographic...	2 mi. E. Yellow Springs, Green County.	1923	500	Boy Scout Camp. Camp sites.	Narrow picturesque gorge. Numerous springs with heavy water volume. Varied flora. Large number tree species.	Gift.
Nelson Ledges....	Scientific, Physiographic.	1½ mi. N. E. Nelson Center, Portage County.	1924	40	Not suitable for recreational development.	Ledge of conglomerate rock converted into interesting geological formations. Hotel owned by state in connection.	Purchase, $10,000.
Hocking Series: Ash Cave, Old Man's Cave, Cedar Falls, Little Rocky Branch, Springer Hollow, Conkle Hollow, Spruce Run.	Forested & Scientific.	Hocking County, beginning 9 miles south of Logan.	1924	2,583	Portions suitable for camping and outdoor study.	These forest parks contain original native trees, shrubs, flowers and ferns, caves, springs, streams and waterfalls thundering over cliffs into clear pools. South end of district composed of narrow gorges with perpendicular sandstone cliffs. North end coming into Pine Valley is a series of narrow valleys, also with perpendicular cliffs.	Purchase, $79,810.
Mohican Park....	Physiographic...	2½ mi. S. W. of Loudonville, Ashland County, on Highway 97.	1927	500	Recreation. Scientific interest.	Finest and most interesting forest and flora in northern Ohio. Shale gorge of unusual interest and beauty.	Purchase, $13,000.

State Forests

State Forestry Department

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Waterloo	Physiographic	2 mi. S. W. Mineral, Athens County.	1915	421	Primarily devoted to experiments forest planting	Purchase, $3,990.
Dean Forest	Physiographic	14 mi. N. Ironton, Lawrence County.	1916	1,700	Many forest plantations planted since 1915	Purchase, $6,750.
Shawnee Forest	Physiographic	12 mi. N. Portsmouth, Scioto County.	1921	19,120	Well stocked native forest. Opportunities for recreation, camp sites.	Purchase, $84,000.
Pike Forest	Physiographic	10 mi. E. Waverly, Pike County.	1923	3,500	Very scenic area. Contains valuable second growth timber. Suitable for recreation.	Purchase, $24,500.
Scioto Trail	Physiographic	10 mi. S. W. Chillicothe, Ross County.	1921	7,500	Very scenic. Second growth forest hardwoods. Recreation, camp sites.	Purchase $52,500.

GAME PRESERVES

Division of Fish and Game, Department of Agriculture

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Roosevelt Preserve.	17 mi. W. Portsmouth, Scioto County..	1922	8,600	None.....	400-acre ring-neck pheasant farm. Turkey, deer and mallard ducks on refuge. A zoo consisting of deer, foxes, black bear, ducks, pheasants and raccoon.	Purchase, $68,000.

OKLAHOMA

GAME PRESERVES

State Game and Fish Commission

Name	Location	Date	Area, acres	Recreational development	Game on refuge	Method of acquisition
McCurtain County.	26 miles north of Broken Bow.	1920–21	16,200	Campers' lodge. Outdoor ovens.....	Deer, turkey, guineas.....	$18,000.
Latimer County....	4 mi. north of Wilburton..	1925	1,560	Boy Scout camp. Fishing, camping,.....	Deer, turkey.....	$7,000.
Cherokee County...	10 mi. north of Talequah..	1926	140	To be developed primarily for recreation, fishing, camping.	Deer, turkey.....	$1,250.

OREGON

State Highway Parks

State Highway Commission

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Oregon City Bluff Tract.	Clackamas County. Pacific Hwy. in Oregon City.	1926	0.388	Parking space.....	Overlooking falls of Willamette River.	$2,000.
Barlow Monument....	Clackamas County. Mt. Hood Loop Hwy. at Government camp.	1925	25.0 sq. ft.	Monument erected and dedicated to Oregon pioneers.	At base of Mt. Hood....	Gift of Harvey G. Starkweather and wife, Portland.
Bradley Park.....	Clatsop County. Columbia River Hwy. 5 mi. W. of Westport.	1921	18.08	Rest rooms, water, lights, caretaker.	Clatsop Crest, overlooking lower Columbia River.	Gift of heirs of Bradley estate, Astoria
Unnamed.....	Curry County. Roosevelt-Coast Hwy. 4 mi. S. of Port Orford.	1926	30.6	None.....	Overlooking rugged coast line.	$1,500.
Cape Sebastian.....	Curry County. Roosevelt-Coast Hwy. 6 mi. S. of Gold Beach.	1925	241.8	None.....	High promontory jutting out into Pacific Ocean.	$6,100.
Unnamed.....	Curry County. Roosevelt-Coast Hwy. 1 mi. N. of Brookings.	1926	17.58	None.....	Viewpoint up and down coast. Excellent sand beach.	$572.76.
Lava River Caves....	Deschutes County. Dalles-Cal. Hwy. 11 mi. S. of Bend.	1926	22.5	Roadways, trails. Caretaker's house.	Natural wonder. Entrance to two Lava River tunnels, each about one mile in length.	Gift of the Shevlin-Hixon Co., Bend.

Booth	Douglas County Pacific Hwy. 2 mi. N. of Myrtle Creek.	1922	6.8	None	Area between highway and Umpqua River.	Gift of J. H. Booth and wife, Roseburg.
Viento	Hood River County, Columbia River Hwy. 7 mi. W. of Hood River.	1925	3.6	Water, parking space, picnic grounds. Caretaker's house.	Timbered—small brook...	Gift of the Pacific Telephone & Telegraph Co., Portland.
Unnamed	Hood River County. Columbia River Hwy. 2 mi. W. of Cascade Locks.	1923	11.5	None	Timbered; view of rapids in Columbia River.	$1,080.
Peter Skene Ogden...	Deschutes and Jefferson counties, Dalles-Cal. Hwy. 8 mi. N. of Redmond.	1925, 1926 and 1927	102.86	Parking space, parapet walls, water rights.	Crooked River Gorge 350 feet deep.	Gift of Oregon Trunk Ry. Co. and exchange of school land & Recl. act of June 14, 1926.
Chandler Park	Lake County. Fremont Hwy. 16 mi. N. of Lakeview.	1925 and 1928	40.0	Water supply	Timbered canyon with spring.	Gift of S. B. Chandler and wife and Frank Loveless and wife, Lakeview.
Unnamed	Lane County. Westside Pac. Hwy. at Benton-Lane County line.	1926	37.3	None	Timbered area along roadside.	$5,000.
Unnamed	Lincoln County. Roosevelt-Coast Hwy. at Boiler Bay. 14 mi. N. of Newport.	1926	5.83	None	Viewpoint rugged coast line.	$291.50.
Unnamed	Lincoln County. Roosevelt-Coast Hwy. at Rocky Creek. 10 mi. N. of Newport.	1926	55.8	None	Viewpoint rugged coastline.	$1,120.
Devils Punch Bowl...	Lincoln County. Roosevelt-Coast Hwy. at Otter Rock.	1926	4.36	None	Rock bowl shaped formation filled at high tide.	Gift of F. W. Leadbetter and wife, Portland.
Holman Park	Polk County. Salem-Dallas Hwy. 6 mi. W. of Salem.	1925	8.62	Water, camp grounds....	Roadside timbered area with spring.	$1,000.

STATE HIGHWAY PARKS—*Continued*

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Helmick Park	Polk County. West Side Pac. Hwy. 6 mi. S. of Monmouth.	1922	5.46	None	Timbered area on banks of Luckiamute River.	Gift of Sarah Helmick and James Helmick and wife, Dallas.
Emigrant Park	Umatilla County. Old Oregon Trail, 3 mi. W. of Meacham.	1925	14.22	Water supply, camping facilities. Lodge.	Timbered area summit of Blue Mountains. Springs where emigrant wagon trains rested. Monument dedicated by President Harding to Oregon pioneers.	$3,271.60 and condemnation.
Unnamed	Umatilla County. Old Oregon Trail. 12 mi. E. of Pendleton.	1924	20.16	None	Viewpoint overlooking large Umatilla wheat country.	$320.
Gangloff Park	Union County. Old Oregon Trail at W. limits of La Grande.	1926	2.49	None	Overlooking city of La Grande.	Gift of Mary T. Foley, La Grande.
Unnamed	Wallowa County. La Grande-Wallowa Lake Hwy. 6 mi. E. of Minam.	1925	47.0	None	Timbered area between highway and Wallowa River.	$1,386.60.
Mayer	Wasco County. Columbia River Hwy. at Rowena Heights.	1924	260.0	Roadway, parking space. Parapet walls.	Overlooking gorge of Columbia River.	Gift of Mark A. Mayer, The Dalles.
Memaloose	Wasco County. Columbia River Hwy. 2 mi. E. of Mosier.	1925	2.64	Walkways and observation gallery.	Overlooking Memaloose Island in Columbia River. Indian burying ground.	Gift of Roy D. Chatfield and wife, Mosier.
Shelton	Wheeler County. John Day Hwy. 11 mi. S. of Fossil.	1926	3.38	Parking space. Water supply.	Roadside timbered area with spring.	Gift of Kinzua Lumber Co., Santa Barbara, Cal.

PENNSYLVANIA

STATE PARKS

Name	Type	Location	Date created	Area, acres	Recreational development
Fort Washington [1]	Historical	N. of Philadelphia, Montgomery County.	1915	166 to be 1,110	Undeveloped.
Pennsylvania State,[2] locally called "Presque Isle."	Physiographic & Historical	Near Erie, County of Erie	1921	7,700 4,500 under water.	Road. Boats. Bathing beach. Camp grounds.
Valley Forge [3]	Historical & Physiographic	15 miles N. W. of Philadelphia, on Valley Creek.	1893–1911	1,428	Roads, camp grounds.
Washington Crossing [4]	Historical	Bucks County	1917	320	Bathing facilities. Camp sites.
Bushey Run [5]	Historical	Westmoreland County	1927	May be 50–100	Undeveloped.

STATE PARKS—*Continued*

Name	Special characteristics	Method of acquisition	Past appropriation by state on purchase and improvements	Present appropriation
Fort Washington [1]	Includes sites of Militia and Fort Hills	Purchase and gift	$125,000	$341,750
Pennsylvania State,[2] locally called "Presque Isle."	Bay of Presque Isle and harbor of Erie, on Lake Erie, where Commodore Perry's fleet was constructed before Battle of Lake Erie.	Transferred from War Department	(State) $235,000 (City of Erie) 75,000	130,000
Valley Forge [3]	Site occupied by Continental Army in 1777–78	Purchase	$2,000,000	90,000
Washington Crossing [4]	Site on which Continental Army assembled on night preceding battle of Trenton, Dec. 25, 1776.	Purchase	311,000	135,000
Bushey Run [5]	Battle of Bushey Run, Aug. 5–6, 1763, in which Col. Henry Bouquet defeated Indians.	Purchase		25,000

[1] Administered by Dept. of Forests and Waters, Harrisburg, with advice of Fort Washington Park Commission.
[2] Administered by State Park and Harbor Commission of Erie, Patrick J. Grant, President, 154 East 6th St., Erie.
[3] Administered by Valley Forge Park Commission, Col. Wm. A. March, Secretary, Norristown.
[4] Administered by Washington Crossing Park Commission, Harman Yerkes, Chairman, Doylestown.
[5] Administered by Bushey Run Battlefield Commission, Col. Richard Coutler, Jr., President, Greensburg.

} Under fiscal control of Dept. of Forests and Waters.

State Forests

Department of Forests and Water

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Buchanan.....	Forested and Physiographic.	S. W. Harrisburg, Franklin, Fulton and Bedford counties.	(*)	22,704	Bear Valley Public Camp near Chambersburg, and Buchanan Park Public Camp in State Forest Park.	Includes some of highest points in the State; Martin Hill State Forest Monument and State game refuge.	$48,892
Bald Eagle.....	Forested and Physiographic.	60 mi. N. Harrisburg, Union, Snyder and Centre counties.	(*)	114,339	McCall Dam Public Camp near Miles; Byron Forest Krumrine Public Camp, near Coburn; Tea Springs Public Camp near Sugar Valley; Joyce Kilmer Public Camp, Harleton.	Contains some of wildest scenery in State. Deer and bear abound. State game refuges and two State forest parks. More than 2,000,000 young trees planted.	$295,754
Delaware.....	Forested and Physiographic.	Pike and Monroe counties.	(*)	64,770	Geo. W. Childs Park. Public Camp, within State Forest Park; Promised Land Publi Camp near Greene.	Contains many lakes. 34,000,000 trees planted to replace worthless scrub oaks.	$99,957
Elk.....	Forested.....	Near Emporium.....	(*)	36,319	Sizerville Public Camp, near Sizerville.	.....	$65,750
Forbes.....	Forested.....	.....	(*)	11,262	Kooser Public Camp, near Summit; Adams Falls Public Camp, near Laughlintown; Laurel Summit Public Camp near Laughlintown.	.....	$54,949

*Dates of creation not obtainable.

STATE FORESTS—*Continued*

Name	Type	Location	Date created*	Area, acres	Recreational development	Special characteristics	Method of acquisition
Kittanning	Forested			5,681	Clear Creek Public Camp near Sigel.		$12,932
Lackawanna	Forested			5,274			$8,495
Logan	Forested	50 mi. N. W. Harrisburg, Huntingdon and Centre counties.		58,770	Colerain Public Camp near State College.	Contains black spruce, balsam, and other plants rare in State. Noted for deer hunting and trout fishing.	$183,429
Michaux	Forested and Historical.	Adams, Franklin and Cumberland counties. S. W. Harrisburg.		40,938	Sprow's Run Public Camp near Carlisle; Laurel Forge Public Camp near Milroy; Caledonia Park Public Camp in State Forest Park.	Extensive pine plantations. Named in honor famous French botanist Andre Michaux and his son, who visited region in 1793 and 1802.	$142,535
Mont Alto	Forested	East Franklin County and W. Adams County.		22,965		Pennsylvania State Forest School located here—gives 4-year technical course. Tree nursery; annual capacity 5,000,000 trees. Also South Mountain Sanitarium for tubercular patients.	$84,092
Moshannon	Forested	Clearfield County		69,624	Smith Place Public camp near Clearfield.	Game refuge	$130,932
Penn	Forested and Historical.	60 mi. N. W. Harrisburg, Centre and Mifflin counties.		53,177	Old Locust Public Camp near Sizerville; Laurel Run Public Camp near Milroy.	Located in Seven Mountains, region is rendezvous for hunters and fishermen. Named in honor founder of Pennsylvania.	$157,004

* Dates of creation not obtainable.

Rothrock	Forested	60 mi. W. Harrisburg, Huntingdon County.	.....	33,187	Sulphur Spring Public Camp near Wayne.	Game Refuge	$92,528
Sinnemahoning	Forested	On Sinnemahoning Creek, Elk and Cameron counties.	.....	94,127	116 permanent camp sites. Hunting.	Rough and rugged. Heavily forested area.	$146,171
Sproul	Forested	70 mi. N. Harrisburg, Clinton and Centre counties.	.....	96,778	Fishing	Named for former Governor Wm. C. Sproul who greatly advanced forestry.	$189,591
Susquehannock	Forested and Physiographic.	Potter and Clinton counties.	.....	172,992	Cherry Springs P. C. near Coudersport; Ole Bull P. C. near Oleona; Patterson Close P. C. near Coudersport; Prouty Place P. C. near Coudersport.	Abundant game. Includes famous Cherry Springs. Drive along Coudersport-Jersey Shore Pike. Part area once known as Black Forest, from heavy stands white pine and hemlock now mostly gone. Being replaced with young hardwoods. State has planted over 4,000,000 conifers.	$318,180
Tiadaghton	Forested	Lycoming, Clinton, Potter and Tioga counties.	.....	121,159	Hunting. Fishing club camps. Ravensburg P. C. near Crawford; Upper Pine Bottom P. C. near Waterville.	Second growth timber and plantations which give cover for game.	$266,184
Tioga	Forested	Tioga County	.....	66,056	Baldwin P. C. near Wellsboro; Darling Run P. C. near Ansonia.	Rugged region in which original coniferous forest is being replaced.	$156,564
Tuscarora	Forested and Scientific.	W. Harrisburg, Perry, Cumberland and Franklin counties.	.....	37,500	Big Spring P. C. near New Germantown; Kansas Valley P. C. near East Waterford. Fishing.	Includes trout streams and number of mineral springs, containing sulphur and magnesia.	$99,462

Game Preserves

Board of Game Commissioners

Primary State Game Refuges and Public Hunting Grounds

Refuge number	Location	Year created	Area (acres)		Kinds of game on the refuge, in order of abundance
			Within the refuge	Public hunting grounds	
1	Clinton County. Sproul State Forest.	1905	2,002	Thousands of acres of State Forest Lands.	Deer, ruffed grouse, cottontail rabbit, black and gray squirrels, woodcock, black bear, raccoon, opossum, varying hare.
2	Clearfield County. Moshannon State Forest.	1906	3,107	Thousands of acres of State Forest Lands.	Deer, cottontail rabbit, ruffed grouse, varying hare, raccoon, fox and gray and black squirrels.
3	Franklin County. Mont Alto State Forest.	1906	1,989.9	Thousands of acres of State Forest Lands.	Deer, cottontail rabbit, gray squirrel, raccoon, ruffed grouse, fox, squirrel, opossum.
4	Perry County. Tuscarora State Forest.	1911	1,864	Thousands of acres of State Forest Lands.	Deer, gray squirrel, wild turkey, cottontail rabbit, raccoon, opossum, ruffed grouse.
5	Westmoreland County. Forbes State Forest.	1911	1,740	Thousands of acres of State Forest Lands.	Deer, gray squirrel, raccoon, varying hare, fox and black squirrels, and occasionally woodcock.
6	Centre County. Bald Eagle State Forest.	1912	1,265.8	Thousands of acres of State Forest Lands.	Deer, cottontail rabbit, gray squirrel, ruffed grouse wild turkey, raccoon.
7	Potter, Clinton and Lycoming counties. Tiadaghton State Forest.	1915	2,460	Thousands of acres of State Forest Lands.	Deer, cottontail rabbit, ruffed grouse, black bear, raccoon, woodcock, elk, varying hare, fox, gray and black squirrels, opossum.
8	Lycoming County. Tiadaghton State Forest.	1915	1,785	Thousands of acres of State Forest Lands.	Deer, gray squirrel, black bear, raccoon, ruffed grouse, cottontail rabbit, varying hare, fox and black squirrels, opossum, and occasionally woodcock.

9	Huntingdon County. Logan State Forest.	1915	2,646	Thousands of acres of State Forest Lands.	Deer, gray squirrel, raccoon, ruffed grouse, black bear cottontail rabbit, wild turkey.
10	Carbon County. Lands leased until 1936.	1915	2,258	8,013.....	Deer, cottontail rabbit, varying hare, gray and fox squirrels, ruffed grouse, raccoon, opossum, woodcock.
11	Lackawanna County. Lackawanna State Forest.	1915	2,774	Several thousand acres of State Forest Lands.	Deer, cottontail rabbit, varying hare, ruffed grouse, black bear, gray squirrel, raccoon, opossum, woodcock.
12	Bradford County. Lands purchased by the Game Commission.	1915	2,106	5,386.9.....	Deer, cottontail rabbit, varying hare, black bear, ruffed grouse, gray and black squirrels, raccoon, and occasionally woodcock.
13	Sullivan County. Lands purchased by the Game Commission.	1915	3,027	9,495.4. (An additional 5,000 acres now under contract for purchase.)	Black bear, deer, cottontail rabbit, ruffed grouse, varying hare, gray and black squirrels, raccoon, and occasionally woodcock.
14	Cameron County. Lands purchased by the Game Commission.	1915	2,507	6,617.25. (Additional lands now under contract for purchase.)	Deer, elk, black bear, varying hare, raccoon, ruffed grouse, woodcock.
15	Potter County. Susquehannock State Forest.	1916	3,434	Thousands of acres of State Forest Lands.	Deer, ruffed grouse, black bear, gray and black squirrels, raccoon, cottontail rabbit, varying hare.
16	Tioga County. Tioga State Forest.	1916	3,970	Thousands of acres of State Forest Lands.	Deer, gray squirrel, ruffed grouse, black bear, varying hare, black squirrel, raccoon, cottontail rabbit, opossum, and occasionally ringnecked pheasant.
17	Potter and Cameron counties. Elk State Forest.	1916	2,802	Thousands of acres of State Forest Lands.	Deer, black bear, cottontail rabbit, varying hare, ruffed grouse, gray and black squirrels, raccoon, woodcock.
18	Mifflin and Juniata counties. Rothrock State Forest.	1916	2,900	Thousands of acres of State Forest Lands.	Deer, gray squirrel, cottontail rabbit, raccoon, ruffed grouse, wild turkey, woodcock, fox and black squirrels.
19	Wyoming County. Lands leased until 1932.	1917	2,100	4,438.6.....	Deer, black bear, ruffed grouse, cottontail rabbit, varying hare, elk, gray fox and black squirrels, raccoon, opossum, and occasionally woodcock.

GAME PRESERVES—*Continued*

Refuge number	Location	Year created	Area (acres)		Kinds of game on the refuge, in order of abundance
			Within the refuge	Public hunting grounds	
20	Bedford County. Buchanan State Forest.	1917	2,196	Thousands of acres of State Forest Lands.	Deer, cottontail rabbit, gray squirrel, raccoon, ruffed grouse, a few black bear, opossum, wild turkey.
21	Dauphin County. Weiser State Forest.	1918	1,849	Thousands of acres of State Forest Lands.	Cottontail rabbit, ruffed grouse, deer, varying hare, gray squirrel, raccoon, opossum, wild turkey and occasionally woodcock and fox squirrel.
22	Union and Centre counties. Bald Eagle State Forest.	1918	2,130	Thousands of acres of State Forest Lands.	Deer, black bear, cottontail rabbit, gray squirrel, ruffed grouse, wild turkey, and occasionally woodcock.
23	Huntingdon County. Rothrock State Forest.	1918	1,896	Thousands of acres of State Forest Lands.	Deer, cottontail rabbit, raccoon, ruffed grouse, wild turkey, opossum, and a few quail.
24	Forest and Clarion counties. Lands leased until 1933.	1918	2,500	3,159.....	Deer, varying hare, black bear, ruffed grouse.
25	Elk County. Lands purchased by the Game Commission.	1920	2,096	4,192.55.....	Deer, black bear, cottontail rabbit, varying hare, raccoon, ruffed grouse, woodcock, opossum.
26	Bedford, Cambria and Blair counties. Lands purchased by the Game Commission.	1921	1,727	5,147.34.....	Cottontail rabbit, ruffed grouse, deer, black bear, fox and gray squirrel, raccoon, opossum, wild turkey, and occasionally woodcock.
27	Cumberland County. Michaux State Forest.	1920	1,409	Thousands of acres of State Forest Lands.	Deer, cottontail rabbit, gray squirrel, opossum, ruffed grouse, raccoon, and occasionally woodcock.
28	Elk & Forest counties. Lands purchased by the Game Commission.	1920	2,622	6,520.7.....	Deer, cottontail rabbit, varying hare, ruffed grouse, black bear.

29	Warren County. Lands purchased by the Game Commission.	1921	2,369	6,349.51.....	Varying hare, deer, black bear, ruffed grouse, cottontail rabbit, gray and black squirrels, raccoon, woodcock.
30	McKean County. Lands purchased by the Game Commission.	1923	2,874	2,172.23. (An additional 6,526 acres now under contract for purchase.)	Deer, cottontail rabbit, varying hare, ruffed grouse, black bear, raccoon, gray and black squirrels, and occasionally woodcock.
31	Jefferson County. Lands purchased by the Game Commission.	1923	655	2,816.39.....	Deer, ruffed grouse, black bear, varying hare, fox squirrel, raccoon, opossum, and a few quail and ringnecked pheasants.
32	Huntingdon County. Logan State Forest.	1921	1,393	Thousands of acres of State Forest Lands.	Deer, wild turkey, gray squirrel, raccoon, ruffed grouse, black bear, varying hare, fox and black squirrels.
33	Centre County. Lands purchased by the Game Commission.	1925	2,904	5,634.....	Deer, cottontail rabbit, ruffed grouse, gray and black squirrels, raccoon, wild turkey.
34	Clearfield and Elk counties. Lands purchased by the Game Commission.	1925	2,068	6,732.....	Deer, ruffed grouse, cottontail rabbit, raccoon, wood cock, opossum.
35	Susquehanna County. Lands purchased by the Game Commission.	1926	1,500	5,121.35.....	Cottontail rabbit, ruffed grouse, deer, varying hare, gray squirrel, raccoon, ringnecked pheasant, woodcock.

Total area of 35 refuges, 78,925.7 acres.

NOTE: The Pennsylvania Board of Game Commissioners has authority under one Act of Assembly to create as many game refuges as they consider desirable, and each refuge is surrounded by lands owned or controlled by the commonwealth which are open to public hunting.

STATE FOREST PARKS
Department of Forests and Waters

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics
Caledonia.....	Physiographic...	Michaux State Forest. 10 mi. E. Chambersburg.	1905	260	Public camp ground. Road. Summer home sites leased. Bathing pool. Public golf course and Graeffenburg Inn adjoin.	Beautiful area named for old charcoal iron furnace located there in 1873 conducted by Hon. Thaddeus Stevens.
James Buchanan...	Forested.....	Buchanan State Forest. Near Foltz.	1921	18½	Public camp ground.....	Birthplace James Buchanan, fifteenth President. Stone pyramid monument marks President's birthplace. Beautiful Norway spruces and hemlocks.
Geo. W. Childs....	Physiographic...	Delaware State Forest. Between Stroudsburg and Milford.	1912	53	Public camp ground.....	Woodland paradise, with beautiful waterfalls, rare ferns and many trees.
Voneida.....	Physiographic and Forested.	Bald Eagle State Forest. Between Lewisburg and Bellefonte.	1916	15	Camping.....	Cool mountain stream, wonderful spring and fine forest environment.
Snyder-Middleswarth.	Forested and Physiographic.	Bald Eagle State Forest. 5 mi. W. Troxelville.	1921	425	No hunting and fishing. Camping facilities.	Largest body virginal timber in Pa.—hemlock, white pine, pitch pine, and hardwoods. Picturesque Swift Run flows through park.
Mont Alto.....	.....	Mont Alto State Forest. 1 mi. E. Mont Alto.	1912	8	Camping facilities. Special summer courses nature study.	Near Pennsylvania State Forest School. Rambling stream through large hemlocks, pines, rhododendron and laurel. Many trails.
Leonard Harrison..	Physiographic...	Tioga State Forest. 7 mi. Wellsboro.	1922	121	.....	Includes one of wildest gorges in state.

Department of Forests and Waters

Name	Type	Location	Date created	Area, acres	Special characteristics
Bear Meadows....	Forested and Physiographic.	Logan State Forest. Near Bellefonte.	1921	350	A resort of forestry and botanical students. Contains specimens Pitcher Plant, Sun Dew and other rare plants; also fir, balsam, tamarack, and black spruce. Numerous fine springs.
Detweiler Run.....	Forested.....	Logan State Forest. Near headwaters Detweiler Run.	1921	32	Giant original white pine and hemlock in primeval forest with undergrowth rhododendron.
Alan Seeger.....	Memorial and Forested.	Logan State Forest. 23 mi. N. E. Huntingdon.	1921	155	Named for Alan Seeger, young American poet, who gave his life in France. Hemlock trees of unusual size and beauty, great stands of oak and magnificent growth rhododendrons sometimes 40 feet high. Ideal camping area.
Joyce Kilmer.....	Memorial and Forested.	Bald Eagle State Forest.....	1921	26	Named for young American poet killed in World War in France in 1918, author of "Trees." Old hemlock and white pines. Accessible only by foot trail on north slope Paddy Mountain.
Ole Bull.....	Historical.....	Susquehannock State Forest. 18 mi. Coudersport.	1921	23	Ole Bull, famous Norwegian violinist, located a colony here in 1852 and began unsuccessful erection of a castle on cliff overlooking Kettle Creek.
McConnell Narrows.	Forested.....	Bald Eagle State Forest. Near Weikert.	1921	50	Magnificent rock scenery of colossal proportions. Stands original hemlock and white pine; giant boulders and caverns.
Mount Logan.....	Forested.....	Bald Eagle State Forest. Near McElhattan.	1921	47	Original giant white pines and hemlocks saved by inaccessibility. Named for Indian Chief, James Logan, greatest of Indian orators.
Mount Riansares...	Forested.....	Bald Eagle State Forest. S. E. Lock Haven.	1921	13	Named for Duke of Riansares, husband of Marie Cristina, Queen Regent of Spain, who invested $5,000,000 sale of Florida to U. S. in Pennsylvania coal lands and timber. Land sold for taxes. Mt. Riansares, 2,293 feet, has grove magnificent hemlocks. Game refuge.
Martin's Hill.....	Forested.....	Buchanan State Forest. Near Rainsburg.	1921	9	Includes a gorge of original hemlocks. Path to top Martin's Hill, 3,075 feet.

SOUTH DAKOTA

State Parks

State Park Board

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Custer* State Park	Physiographic and Scientific.	Near Hermosa, Custer and Pennington Counties.	1919–21	125,000	Scenic roads. Trails. Fishing. Boating. Golf. Saddle horses. Camp grounds. Hotels under concessionnaire. Sites for cabins rented for $10 per year. Cabins rented.	Lofty, majestic peaks, numerous gorges, canyons, valleys and streams in Black Hills. Includes Harney Peak, 7,254 feet, Sylvan Lake Region, and the remarkable granite "Needles." Game preserve.	Act of State Legislature and U. S. Congress.

*Resident superintendent, C. W. Robertson.

State Game Preserves

Game and Fish Commission

Name	Location	Date created	Area, acres	Game on refuge	Method of acquisition
Custer	In Custer State Park	1913	800	Birds, deer, elk, buffalo, mountain sheep and goats.	Purchase.
Antelope preserve	Harding County	1924	10,000	Birds, fowl, antelope	1,760 acres owned by the state. Remainder leased school land.

TEXAS

STATE FORESTS

Forest Service

Name	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Kirbyville State Forest.*	5 mi. E. Kirbyville, Newton County.	1924	1,701	Boy Scouts have built large log cabin on Kirbyville State Forest. Free camp grounds with flowing spring cleared and developed here also.	Stands longleaf pine. Forest tree nursery.†	Purchase, $6 per acre. $10,206.
Conroe State Forest*...	5 mi. S. Conroe, Montgomery County.	1925	1,633	.....	Loblolly and shortleaf pine†.....	Purchase.
Maydelle State Forest..	1½ mi. W. Maydelle, Cherokee County.	1925	2,360	.....	Fine stand second growth shortleaf pine.†	Prison land set aside.

*Superintendent.

†No virgin timber.

VERMONT

State Forests

Vermont Forest Service

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
L. R. Jones.....	Forested.....	Plainfield.....	1909	600	Forest Fire Lookout Station.	Mountainous.....	$2,875.
Mansfield.....	Forested.....	In Underhill and Stowe.	1914	5,000	Camp sites available. Trails. Toll road to summit Mt. Mansfield.	Mt. Mansfield, 4,383 feet, is highest mountain in state. Forest is traversed by beautiful Smugglers Notch highway.	$13,600.
Camels Hump....	Forested.....	Huntington and Duxbury.	1916	4,500	Camp sites available. Trails. Shelters.	Section of Long Trail on forest Camels Hump 4,083 feet elevation.	Gift by late Joseph Battell and purchase, $9,450.
Groton*.....	Forested.....	18 miles east of Montpelier in Marshfield, Groton and Peacham.	1919	15,000	Excellent camp sites. Permanent summer homes under special use permits.	Beautiful lakes, streams and wild places. Cut-over but is now coming back with natural forest and replanting.	$30,400.
Lyndon.....	Forested.....	1½ mi. E. Lyndon..	1912	75	.....	Young tree growth, some 25 feet high. Originally drifting sand land.	$148.
Charles Downer..	Forested.....	Sharon.....	1910	800	Camping sites.....	Extensive forest plantations and small tree nursery.	Gift of Hon. Charles Downer.

Proctor-Piper*....	Forested.....	Near Proctorsville, Windsor County.	1914	424	Camp sites; roads. Trails.	Example of cutting of a forest in accordance with forestry principles.	Gift of Ex-Gov. Redfield Proctor.
Calvin Coolidge..	Forested.....	Plymouth.....	1925	879	Camp sites.....	Chiefly spruce and hardwoods. Excellent forest demonstration area.	$6,620.
Townshend*.....	Forested.....	Townshend.....	1912	700	Trails and roads. Established camp grounds.	Bald Mountain, 1,745 feet, principal scenic attraction. Several excellent plantations.	$3,435.
Arlington.....	Forested.....	Arlington, near Shaftsbury depot.	1913	225	.....	Wild forest area; 40 acres planted...	$1,450.
Hapgood.....	Forested.....	Peru.....	1910	100	.....	Mountainous wild forest land.....	Gift of the late Marshall J. Hapgood.
Geo. Aiken.....	Forested.....	Mendon.....	1912	800	.....	Mountainous wild forest land.....	$1,900.
West Rutland....	Forested.....	West Rutland.....	1913	350	.....	Mountainous wild forest land.....	$1,200.
Putnam.....	Forested.....	Worcester.....	1914	1,400	.....	Mountainous wild forest land.....	Gift of C. C. and Ralph Putnam and $174.
Granville Reservation.	Forested.....	Granville Gulf.....	1928	900	Will be developed...	Well timbered with spruce and hardwoods. Wild and beautiful section of state. Includes picturesque Moss Glen Falls.	Gift of Ex-Gov. Redfield Proctor.

*Resident custodian.

State Forest Parks

Vermont Forest Service

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Mt. Philo.....	Forested.....	Charlotte, near N. Ferrisburg.	1925	160	Camp sites available. Observation Tower.	Situated on hill near Lake Champlain, offers wonderful view of Champlain Valley and Adirondacks.	Gift of Mrs. Frances W. Humphreys.
Ainsworth.....	Forested.....	Williamstown.....	1926	432	Camping permitted..	.....	Gift of Miss Mary E. Waterman and 226 acres $904.

VIRGINIA

State Forests

State Forester

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Gallion*.....	Forested.....	3 mi. S. Green Bay, Prince Edward County.	1920	588	Will ultimately be developed for camping and recreation.	Demonstration area of practical utility timber culture. No virgin timber. Hardwoods, scrub pine and shortleaf pine. Game preserve.	Gift of late E. B. Gallion.

*Caretaker.

Game Preserves

Commission of Game and Inland Fisheries

Name	Location	Date created	Area, acres	Game on refuge	Method of acquisition
Game Sanctuary...	Near Green Bay, Prince Edward County.	1928	600	Just established.....	Gift of late E. B. Gallion.

WASHINGTON

State Parks

State Park Committee

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Bay View*.....	.....	Padilla Bay, N. of Bay View, Skagit County.	1925	12	Camping facilities, community kitchen, water, beach.	.....	Gift of Women's and Mothers' Club.
Crawford*.....	.....	N. W. corner Pend Oreille County.	.....	40	No improvements. Open to exploration.	Gardiner Caves, several hundred feet underground.	Gift.
Deception Pass†..	Physiographic...	Tracts Whidby and Fidalgo Islands. Skagit and Island counties.	1922	1,980	Excellent camping facilities. Beach. Camp ground. (50 cents per camp per night.)	Large stretches salt water frontage. Four islands near Deception Pass. Deep sea fishing. Frontage on Pas Lake and Cranberry Lake. Bathing. Boating.	U. S. grant to State of Washington.
Dry Falls of Grand Coulee.*	Physiographic...	S. W. of Coulee City, Douglas County.	1927	3,000	Will be extensively developed. Community kitchens, water, facilities for camping 1928. 12,000 visitors in 1927.	Portion ancient river bed of Columbia River. Grand Coulee itself cut 700 to 1,000 feet deep, 50 miles long. Post-glacial wonder of first magnitude. Falls estimated to have been 1½ miles wide point precipitation, creating a fall of several hundred feet.	Set aside from state lands by State Land Commissioner.
Larrabee†	Physiographic...	8 mi. So. Bellingham.	1923	20	Excellent camping, 50 cents per night per car, with fuel, light, water, and poilceprotection.	Located on scenic Chuckanut Drive. ¼ mile salt water frontage. Boating, bathing, wonderful view San Juan Islands.	Gift.

Lewis & Clark†	Forested	13 mi. So. Chehalis, Lewis County.	.....	520	Excellent camping area. Small charge for overnight camping; 50 cents per camp per night.	One of few remaining areas virgin timber in state, largely of splendid Douglas fir.	State-owned land.
Mahler	Forested	N. W. Enumclaw	1923	30	No developments	.....	Gift.
Millersylvania*	Physiographic and Memorial.	9 mi. So. of Olympia.	1921	780	No improvements because of lack of funds. Income trust fund will permit development within few years.	Frontage on Deep Lake. Splendid stand timber and broad meadows.	Gift.
Moran†	Physiographic	Orcas Island, San JuanCounty. Auto ferries from Anacortes-Bellingham and Lumi Island.	.....	4,000	Fishing. Camp ground with facilities including community kitchen. Bathing. Boating.	Includes Mountain, Twin Lakes, and all of Cascade Lake. Mt. Constitution, 2,400 feet elevation, offers unsurpassed view of San Juan Islands and mainland.	Gift.
Schafer*	Forested	7 mi. N. Grays Harbor. Highway.	1924	25	Excellent camping	Wonderful stand of majestic maples, with moss and vine covered trunks. One-half mile river frontage.	Gift.
Sequim Bay*	Forested	6 mi. So. Sequim	1924	84	Bathing, Boating. Clam digging. Fishing. Camping. Store operated by concessionaire.	Frontage on Washington Harbor. Easy motoring distance of Olympic Mts.	State-owned land.
Twanoh†	Physiographic	On Hood Canal. 25 mi. W. Bremerton.	1923	40	Salt water bathing. Camping. Community kitchen. Store under concession. Boating. Fishing and clam digging.	.....	$4,150 and state-owned land.

*Park custodian summer season only, six months.

†Park custodian year round.

STATE PARKS—*Continued*

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Mount Spokane*..	Forested.....	35 mi. N. E. of Spokane.	1927	1,500	Will be extensively developed for recreation.	From its summit, mile in height, mountain ranges of British Columbia, Idaho, and Eastern Washington present beautiful view.	Gift and purchase.
Salt Water Park†.	Physiographic...	Between Seattle-Tacoma.	June 9 1927	92	Adjoins proposed scenic highway. Community kitchens, etc.	A fine salt water beach.....	Gift and purchase.
Wormald†.....	Forested.....	East fork Lewis River. 25 mi. N.E. Vancouver, Wash., Clark County.	June, 1927	160	None.....	Rugged mountains. Natural scenic area. 4 mi. from auto road.	Gift.
Women's Federation Park.*†	Forested.....	On Sunset Hwy. 6 mi. W. of Snoqualmie Pass near Camp Joy.	To be created early 1928	62.85	To be used as exhibit park of forest types found in Washington. To be dedicated early in June, 1928.	Most wonderful stand typical Washington timber adjacent to any highway in state.	Thru efforts Wash. State Fed. of Women's Clubs. Gift. Public donations.
Unnamed*†.....	Forested.....	Spokane - Newport Hwy. 15 mi. So. of Newport, Washington.	1927	160	None.....	Every type of timber grown in Eastern Washington.	Gift possible thru public-spirited citizens Spokane, Newport.
Polson State Park.	Forested.....	Adjacent to city limits of Hoquiam, Wash.	1922	310	Shelter house and trails. No overnight stops.	Typical stand of timber native to Washington.	Legislative Act.

* Park custodian summer season only, six months.

† New park areas since last Biennial Report.

State Monuments

State Park Committee

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Mathilda N. Jackson.....	Memorial...	W. side Pacific Highway. Lewis County.	1917	5	Memorial to Mrs. Mathilda N. Jackson, an early pioneer of Lewis County.	Gift.
Rigney.....	.....	South Tacoma.....	1922	.....	Deeded to state for club house site for Pioneers' Assn. of Pierce County.	Gift.
Spokane Plains Battlefield Monument.	Historical..	14 miles west of Spokane on Sunset Highway.	1926	.....	Historical—commemorating battle of Spokane Plains (Indian and white) (See No. 22 of Third Biennial Report).	Gift.

State Forests

State Forest Board

Name	Type	Location	Area, acres	Recreational development	Special characteristics	Method of acquisition
Grays Harbor.....	Forested	Grays Harbor County	2,240	None.....	Logged off land on which there is a fair stand of young timber.	Gift and state lands.
Pacific and Wahkiakum.	Forested.....	Pacific and Wahkiakum counties.	39,548	None.....	Logged off land on which there is a fair stand of young timber.	Gift, state lands and purchase.
Clark and Skamania	Forested.....	Clark and Skamania counties.	21,801	None.....	Old burn with dense stand of young timber 25 years old.	State lands and purchase.

WEST VIRGINIA

State Monuments

State Board of Control

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Berkeley Springs	Physiographic.	Morgan County	1776	8	A watering place since the middle of the 18th century. Hotel operated by concessionaire.	Grant.
Rumsey Monument	Memorial	Shepherdstown, Jefferson County.	1906	2	Two parks in oldest town in state, including monument to James Rumsey who invented a steamboat prior to Robert Fulton, and made it run on the Potomac.	Purchase.
The Mound	Historical, Scientific.	Moundsville, Marshall County.	.....	2	A famous mound discovered in 1771, opened in 1838. Contained relics of a pre-Indian race.	Purchased by children of state.
Tu-Endie-Wei	Historical	Point Pleasant	1901	2	Site of battle in 1774 which gave the Ohio Valley to the Americans. Old blockhouse remains.	Purchase.

State Forests

Game and Fish Commission

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Seneca	Forested	Pocahontas County	1924	10,847	None. Game Preserves.	All cut-over. Good reproduction. Game preserve.	$36,880.
Watoga	Forested	Pocahontas County	1924	4,546	None. Game preserves.	Cut-over forest. 200 acres virgin timber. Game preserve.	$18,729.

Game Preserves

Game and Fish Commission

Name	Location	Date created	Area, acres	Recreational development	Game on refuge	Method of acquisition
Quincy	Kanawha County	1926	2,600	None		
New Creek	Mineral County	1924	3,000	None	Deer, elk, pheasants, quail, ring-necked pheasants, Hungarian partridges, ruffed grouse, squirrel, rabbits.	Lease.
West Union	Doddridge County	1924	3,164	None	Deer, elk, pheasants, quail, ring-necked pheasants, Hungarian partridges, ruffed grouse, squirrel, rabbits.	Lease.
State Hospital for Colored Insane.	Mason County	1926	667	None	Small game	Lease.
Lakin	Preston County	1922	707	None	Small game; wild ducks nesting on artificial lake.	Lease.
McKendree Hospital No. 2.	Fayette County	1926	116	None	Small game	Lease.
WestVirginia Industrial School for Boys.	Taylor County	1926	1,750	None	Small game	Lease.
West Virginia Agricultural Experiment Station.	Monongalia County	1926	705	None	Small game	Lease.
Gauley Refuge	Fayette County	1924	20,000	None	Deer and small game	Lease.

WISCONSIN

State Parks

Department of Conservation

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Brule River*.....	Forested.....	Brule, Douglas County.	1908	640	Fishing. Boating. Camping.	Second-growth timber along Brule River. Game preserve.	Gift
Devils Lake*.....	Scientific.....	Baraboo, Sauk County.	1912	1,400	Trails. Road. Hotel and camp accommodations. Camping supplies. Bathing suits available concessionaire, also boats. Fishing.	Rough topography. Well forested. Lake enclosed three sides by rugged bluffs Baraboo quartzite. Surrounded by great crags and bluffs of rock. Glacial drift formed lake basin by damming both ends older gorge. Game preserve.	$200,000.
Interstate* (See Minn.).	Scientific and Forested.	St. Croix Falls, Polk County.	1895	580 in Wis. 150 in Minn.	Camp sites. Trails. Bathing.	Dells St. Croix River chief features. Picturesque rock formations, including "Old Man of Dalles." Pot holes worked into solid rock by grinding action spherical boulders. Well wooded. Game preserve.	$20,000.
Nelson-Dewey*...	Scientific and Forested.	Wyalusing, Grant County.	1912	1,650	Trails. Road. Camp grounds.	On bluffs Mississippi River. Canyons with solid walls ragged rocks. Pictured Rock of brilliantly colored sandstone with waterfall and column petrified moss. Notable Indian mount. First fur trading post in region. Well wooded. Game preserve.	$50,000.

Northern Forest Park.*	Forested.....	Trout Lake, Vilas County.	1925	76,000	Roads. Trails. Telephone lines. Bathing. Fishing. Several summer resorts in park. Many camp grounds.	Wilderness area of lakes, streams, and wooded country. Game preserve.	Legislative act. Vacant state lands.
Pattison*.....	Forested and Scientific.	12 mi. S. Superior, Douglas County.	1920	660	Trails. Camp grounds. No boating or bathing.	Beautiful Manitou Falls, caused by change soft red sandstone of Superior plain to hard Keeweenawan volcanic rock, drops 165 feet into steep-walled gorge. Tall white and Norway pines. Beautiful gorge. Game preserve.	Gift of Martin Pattison of Superior.
Peninsula*.....	Forested.....	25 mi. N. Sturgeon Bay, Door County.	1910–1914	3,400	Trails. Pathways. Golfing. Bathing. Supplies near-by town camp grounds.	Excepting three distinct bluffs gentle rolling land. Excellent forest cover of white cedar, red pine, beech, etc. Game preserve.	$96,000.
Perrot*.....	Historical.....	Trempealeau, Trempealeau County.	1920	910	Camp sites available. Will be developed.	Tremealeau Mountain famous as discovery Father Hennepin in 1680. Nicholas Perrot's trading post. Site French fort in 1731. Many relics unearthed. Game preserve.	Gift of John A. Latsch, Winona.

*Park superintendent.

State Monuments

Department of Conservation

Name	Type	Location	Date created	Area, acres	Special characteristics	Method of acquisition
Cushing Memorial*...	Memorial.....	½ mi. W. Delafield, Waukesha County.	1911	8	Old Cushing homestead. William B. sank the ironclad ram Albemarle; Alonzo H. did much to turn Pickett's charge; Howard B. killed in hand-to-hand conflict with Apaches.	Gift.
First Capitol*.....	Historical.....	Belmont, Lafayette County.	1924	2	Site first capitol established in 1836. Restored.	$10,000.
Tower Hill.....	Historic.....	Spring Green, Iowa County.	.....	60	Old shot tower cut through solid limestone rock. Scenic on banks of Wisconsin River.	Gift of Mrs. Jenkin Lloyd Jones.

*Caretaker.

WYOMING

State Reserves

State Board of Charities and Reform

Name	Type	Location	Date created	Area, acres	Recreational development	Special characteristics	Method of acquisition
Big Horn Hot Springs.	Physiographic, scientific.	Adjacent Thermopolis, Hot Springs County.	1897	1 sq. mile.	Modern bathhouse, gives free service to thousands. Tourist camp ground. Hotels. Baths. Swimming pools. Apartments. Amusement places. Open all year.	Four large and hundreds of smaller mineral springs furnish water for lakes and falls as well as medical treatment. Approximately half million expended on parking, streets, lighting system, bridges and buildings. Scenic Wind River Canyon an additional attraction.	Act of Congress.
Saratoga Hot Springs.	Scientific.....	Carbon County.....	1921	440	Cottages. Club room. Bathhouse. Further development planned.	Group notable natural hot springs of mineral water famous for curative power.	$50,000.

STATE-OWNED AREAS

PARKS, FORESTS AND GAME PRESERVES

Name of State	State Parks		State Forests		Game Preserves		State Monuments
	Number	Area, acres	Number	Area, acres	Number	Area, acres	Number
Alabama			4	110			
Arkansas	1	1,128					6
California	7	14,130					
Connecticut	36	7,695	15	37,684			8
Florida	1	4,000					5
Georgia			2	27			4
Idaho	3	8,890	1	194,617			
Illinois	8	2,477	1	80	2	5,300	11
Indiana	8	6,990	1	4,500	2	13,889	5
Iowa	38	7,296					1
Kansas	5	3,177					3
Kentucky	4	2,224	1	3,624			1
Louisiana			1	5,870	5	262,000	
Maine							10
Maryland			3	3,843	7	4,186	
Massachusetts	7	21,023	43	103,509	9	2,324	
Michigan	66	33,173	8	141,571	7	38,400	
Minnesota	16	41,580	3	456,000			4
Missouri	12	36,694					
Montana			8	499,949			
Nebraska	*4 4	855 808			6	23,769	
New Hampshire			56	23,150			
New Jersey	5	12,413	6	21,781	1	98	
New York	56	2,259,452			4	4,742	27
North Carolina	3	1,640	1	100			
North Dakota							25
Ohio	6	30,500	10	3,623	1	8,600	16

Oklahoma					3	17,900	
Oregon	25	1,081					
Pennsylvania	5*	9,664	24	1,133,050	35	78,925	
South Dakota	1*	125,000			2*	2,560	
Texas	†		3	5,694			
Vermont			15	31,843			
Virginia			1	588	1	600	
Washington	19	12,115	3	63,589			
West Virginia			2	15,393	9	32,709	4
Wisconsin	9	85,400					3
Wyoming	2	441					

*These areas are set aside for recreational purposes but are administered under Bureau of Game and Fish.
†A table is not furnished, as due to lack of development the Texas Park Board only wishes these areas listed in their state chapter.

AUTHOR'S NOTE: Nine states are not included in the above table, since they do not possess state parks, forests or state-owned game preserves. They are as follows: Arizona, Colorado, Delaware, Mississippi, New Mexico, Rhode Island, South Carolina, Tennessee and Utah. Tennessee has a state park in the making at Reelfoot Lake. Arizona, Colorado, New Mexico, South Carolina and Tennessee have game preserves though not on state-owned land. Rhode Island has a number of Metropolitan parks which serve the entire state.

STATE OFFICIALS

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Colonel Page S. Bunker, *State Forester*, Montgomery. (Parks and Forests.)
I. T. Quinn, *Commissioner of Game and Fish*, Montgomery.

ARIZONA:

D. E. Pettis, *State Game Warden*, Phoenix.

ARKANSAS:

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A. C. Millar, *Secretary*, Honorary Forestry Commission, Little Rock.
Guy Amsler, *Secretary*, Game and Fish Commission, Little Rock.

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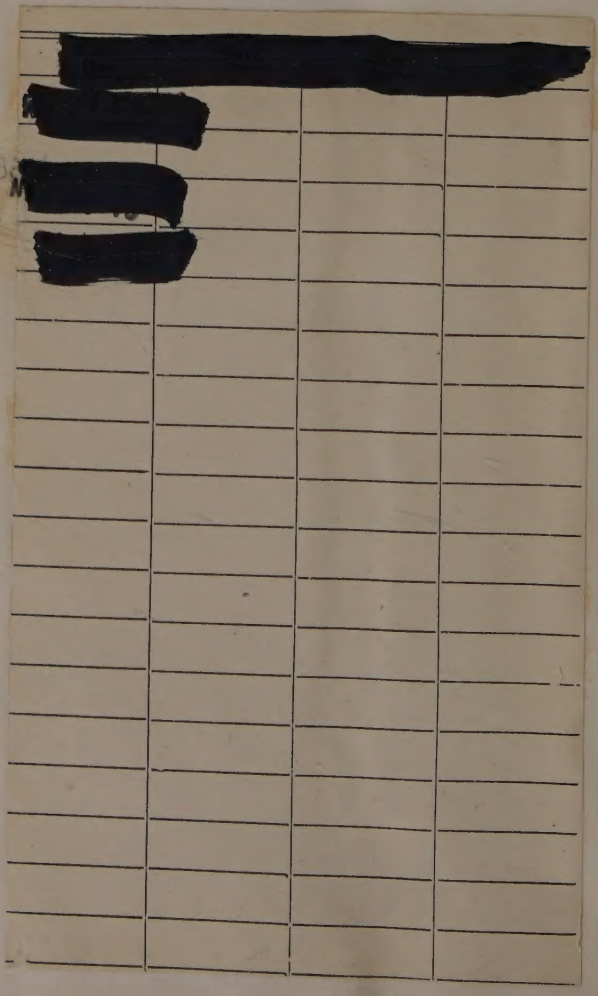
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